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ON

## URETERAL CALCULI:

### A REVIEW OF THE METHODS EMPLOYED FOR THEIR REMOVAL, WITH NOTES OF TWO SUCCESSFUL CASES OF TRANSPERITONEAL URETERO-LITHOTOMY.

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[WITH SPECIAL PLATE.]

THE employment of the Roentgen rays in the diagnosis of ureteral calculi has added greatly to our knowledge of, and the interest taken in, this field of surgery.

Formerly, unless the calculus could be felt through the rectum or vagina, or was arrested at the extreme end of the ureter and actually protruded into the bladder, it was difficult or impossible to distinguish between renal and ureteral stones previous to operation. The routine procedure was to explore the kidney, and then to search the ureter by means of a long flexible probe passed downwards from the renal pelvis. The angle formed by the ureter in its course over the pelvic brim was, however, a serious stumbling-block, and calculi in the pelvic portion of the ureter were not uncommonly overlooked.

The Roentgen rays have altered all this, and we are now able to predict with more or less certainty the presence or absence of a calculus in all suspected cases. Moreover—and this is a point of much importance—when a calculus is present, we can locate the exact point in the ureter where it will be found.

In the hands of an experienced radiographer it may be taken as generally correct that a negative finding excludes a calculus. Where a positive finding has been obtained the case is a little different, because phleboliths in the uterine or other pelvic veins, calcareous patches in atheromatous arteries, and especially tuberculous glands that have undergone calcification, all cast shadows which resemble in varying degrees that of an ureteral calculus. A careful scrutiny of the picture may show that the shadow of the pseudo-calculus does not lie on the anatomical line of the ureter, and that it lacks the clear-cut outline of a genuine calculus; but, in the light of cases recorded in which the mistake has been made, it is impossible to ignore altogether this source of error.

The *x* rays have demonstrated that, contrary to the belief formerly held, calculi are found in the ureters more frequently than in the kidneys. Leonard,[1] from a careful analysis of a series of cases, estimated the ratio as being two ureteral to one renal stone.

Morris,[2] Bovee,[3] and Schenck,[4] have shown that the vast majority of ureteral calculi are arrested at one or another of certain definite points in the ureter, and a study of its anatomy reveals why such should be the case. The lumen of a normal ureter is greatest in its central portion, where its diameter amounts to as much as one quarter of an inch. Towards the renal end it narrows to about one-seventh of an inch, and at its bladder end to one-tenth of an inch. There is a third slight constriction where it passes over the brim of the pelvis, and at this point it makes an angle of 135°.

Morris has tabulated 44 cases in which the site of the calculus was noted. Of these, 19 were found within an inch or two of the upper end, 10 at the brim of the pelvis, and 15 in the pelvic portion of the ureter.

The combined cases collected by Bovee and Schenck, omitting a few in which the stone was found in the central portion of the ureter, amount to 125. Of these, 41 were at the upper end, 25 at the pelvic brim, and 59 in the pelvic ureter.

Primary calculi of the ureters are very rare. They form around foreign bodies, or on ulcerated surfaces, and are usually phosphatic in character. The vast majority of ureteral calculi descend from the pelvis of the kidney, and most of these belong to the uric acid group, are oval in shape, and quite smooth. A small minority are oxalates with prickly surfaces which cause much irritation. When a calculus is impacted in a ureter the latter hypertrophies and becomes dilated above the stone, which frequently acts as a ball valve, and produces intermittent hydronephrosis. The calculus increases in size slowly but steadily, and if it does not escape into the bladder soon after entering the ureter there is no hope of it doing so later.

The treatment of abdominally placed ureteral calculi calls for little comment. The symptoms will be those of renal colic, and in nearly every case operative measures will include an exploration of the kidney. By prolonging the usual oblique nephrotomy incision downwards and forwards the whole of the abdominal portion of the ureter may be easily exposed, lying immediately behind the peritoneum, to which it is loosely attached. The calculus may be manipulated upwards to the renal pelvis, or, if it is not possible to do so, the ureter can be incised retroperitoneally over or, better still, just above the stone. After extracting the calculus and searching the ureter upwards and downwards the wound in the tube is closed by two or three fine catgut sutures, which should not engage the mucous coat.

In the pelvic portion the problem is much more difficult, and not a little ingenuity has been displayed in devising methods for approaching this part of the ureter. The dominant idea in planning almost all of these methods has been to reach and incise the ureter extraperitoneally.

Among the routes suggested and actually practised the following may be mentioned:

1. The intravesical.
2. The perineal.
3. The parasacral.
4. The trans-sacral.
5. The vaginal.
6. The rectal.
7. The iliac extraperitoneal.
8. The combined intraperitoneal and extraperitoneal and
9. The transperitoneal.

The vesical route is applicable to cases in which the calculus is arrested at the outlet of the ureter. In most instances the lower end of the stone protrudes into the bladder and can be felt with a searcher or actually seen through a cystoscope. Suprapubic cystotomy in the male and dilatation of the urethra in the female afford the necessary approaches.

The peritoneum covering the pelvic floor in the male is reflected on to the posterior wall of the bladder two-thirds of an inch above the lower end of the ureter, and short of

this extent the male ureter may be laid open from the bladder without injuring the peritoneum. In the female vesico-utero-lithotomy is less safe, and Thornton has recorded a fatality from peritonitis after this operation in a woman.

The perineal route was devised and successfully practised by Fenwick.[5] Through it the lower end of the ureter is reached after a deep dissection between the urethra and prostate and the rectum. The procedure is admittedly a difficult one, and in at least one case had to be abandoned by the operator.

The para-sacral route was designed by Sir Henry Morris, and is fully described in his classical work on *Surgical Diseases of the Kidney and Ureter*. He employed it successfully in two female cases. Rigby[6] had recourse to it in four male patients, all of whom recovered, but in one case he failed to find a calculus. The operation commences with an incision 5 in. long, parallel with, and a finger's breadth external to, the lower part of the sacrum and the coccyx. The posterior fibres of the gluteus maximus muscle, and, deeper, the sacro-sciatic ligaments are divided. The steps of the operation have been carefully thought out, and, although it involves a tedious dissection, it is undoubtedly superior to any of the other procedures conducted through the floor of the pelvis.

Cabot[7] is responsible for suggesting the trans-sacral route, the preliminary steps of which are identical with those of Kraske's operation for cancer of the rectum. Sick relates a remarkable case in which he attempted to deal with a large pelvic calculus in this way. A portion only of the stone was removed, while the remainder worked its way up the ureter to the pelvis of the kidney, where it was discovered after a subsequent nephrectomy.

The vaginal route has been practised by Emmet, Cabot, Freyer, and others with success. At first sight it would appear to be a comparatively easy operation, but inability to fix the stone while the ureter is being opened is a drawback. In one of Freyer's cases the calculus became displaced and could not be found. Fortunately it subsequently escaped through the vaginal wound and was caught on the dressing.

Emmet used scissors for making the incision, and closed the opening in the ureter with interrupted sutures. There was no subsequent leakage. Cabot[8] records the case of a woman aged 39, who had suffered from attacks of renal colic for sixteen years. There was a left pyonephrosis, and a small, hard mass could be felt in the left broad ligament close to the cervix uteri. After incising the ureter and removing the stone 10 oz. of pus escaped and the renal swelling disappeared. The patient ultimately recovered, but a uretero-vaginal fistula persisted for four months.

The rectal route need only be mentioned as an example of surgical temerity. Cecci has placed on record a successful case, but in the hands of other operators it has been attended with disaster.

In recent years there has been a growing tendency to attack pelvically placed calculi from above, and here, again, there is a choice of methods. The operation may be performed retroperitoneally; the peritoneum may be opened and the stone pushed up to a point above the pelvis, from whence it is removed retroperitoneally; or the stone may be dealt with transperitoneally.

The first of these methods is known as the iliac extraperitoneal operation. It has been practised many times, and most surgeons accept it as "the operation of choice." It is carried out as follows: The abdominal parietes down to the peritoneum are divided from a point slightly above and to the inner side of the anterior superior spine of the ilium downwards and inwards to 1 in. above the centre of Poupart's ligament, and then horizontally inwards above the internal inguinal ring to the outer margin of the rectus muscle. The edges of the wound are retracted widely and the peritoneum lining the side of the pelvis is displaced inwards until the ureter is reached. The stone is now located and, if possible, pushed up above the pelvic brim, from whence it is removed through a vertical incision in the posterior wall of the ureter.

After searching for other calculi, both upwards and downwards, the ureteral wound is closed by inserting two or more Lembert sutures. If the calculus cannot be displaced upwards, the ureter is incised over it, but in these cases, owing to the great depth at which the operator is working, it is usually quite hopeless to attempt to close the wound in the ureter by sutures, and ample provision must be made for urinary leakage which for a time will follow.

The second method—the combined intraperitoneal and extraperitoneal operation—has been resorted to by R. B. Hall[9] and Arbuthnot Lane,[10] each of whom records a successful case. Its technique consists in opening the abdomen and introducing a part, or the whole, of one hand, with which the stone is pushed up to a point above the iliac crest, from whence it is removed extraperitoneally through a small opening in the flank.

A modification of this method is to open the abdomen through one or other semilunar line; locate the stone by intraperitoneal palpation; displace it upwards as far as possible; strip the parietal peritoneum on the outer side of the wound downwards until the stone is reached, and open the ureter extraperitoneally. Gibbon[11] records particulars of two cases successfully operated on in this way. No attempt was made to suture the wound in the ureter, and in both cases a temporary urinary fistula resulted. A third case is reported by Erdman.[12] The patient was 7 years old, and had had symptoms for three years. The wound healed in two weeks.

There remains for consideration the transperitoneal method, which I used in the two cases recorded in this paper. It has received severe and, I think, altogether unmerited condemnation from Morris, Freyer, and others.

Morris[13] says, "Nothing should induce the surgeon ever to incise a ureter through the peritoneum unless he is absolutely sure of the aseptic state of the urine."

Freyer[14] writes: "Considering the grave danger of urinary leakage I hold that, even when the abdomen is opened for the purpose of effecting a diagnosis, if a stone is located in the ureter the abdomen should be closed and the calculus removed at a subsequent date extraperitoneally."

These opinions, coming as they do from workers who have done so much to advance our knowledge of ureteral surgery, necessarily carry much weight; but when one attempts to ascertain the facts on which they are founded there is a singular absence of evidence. I have gone carefully through the literature on the subject to which I have had access and with the exception of a case reported by Cullingworth I have failed to find a single death following the transperitoneal operation.

As much prominence has been accorded to Cullingworth's[15] fatal case it may be well to reproduce his account of it.

A female, aged 30 years, admitted to St. Mary's Hospital, Manchester, 1884. Right pyonephrosis. A vaginal examination revealed a mass of stony hardness, of the size of a walnut, to the right of the uterus, and a smaller equally hard mass to the left. The urine contained pus to the amount of one-fourth of its volume. Diagnosis—right pyonephrosis, with independent disease of both ovaries.

Exploratory laparotomy through right semilunar line; right ureter enormously dilated and very tense. On following it down to the pelvis a large stone was found. Ureter incised in its long axis above stone; escape of a large quantity of highly offensive pus. Stone removed; weighed 270 grains; wound in ureter closed with difficulty by five interrupted sutures of fine carbolized silk; opposite ureter not examined because of patient's critical condition; glass tube inserted. Operation lasted an hour and a half. Death from uraemia eighty hours afterwards.

*Autopsy.*—Right kidney—numerous small abscesses; two calculi. Left kidney—pelvis and calyces formed a large irregular abscess cavity; left ureter greatly dilated; half an inch from bladder large stone.

It is hardly necessary to say that almost any operation performed on a patient in so desperate a condition would end fatally, and that it is illogical to quote this case as evidence of the danger attending transperitoneal uretero-lithotomy.

Let us, in the absence of facts, examine for a little while the reasons for assuming that the transperitoneal operation is a dangerous one. They resolve themselves into (*a*) fear of infecting the peritoneum during the operation, and (*b*) danger of urinary leakage subsequently.

The urine in most cases of impacted ureteral calculi is sterile, and when it is not so the virulence of the organisms it contains is no greater than that of those found in a suppurating appendix, or in a pyosalpinx, lesions which when dealt with by modern methods have scarcely a mortality. Again, in Wertheim's operation for advanced uterine cancer, the ureters are divided and implanted into the bladder, when necessary, with the happiest results.

As I hope to show presently, with proper technique, a wound in the ureter—even in the pelvic ureter—is almost as easily closed by suturing as a wound in the large intestine, while it is infinitely less likely to reopen from subsequent tension on the sutures. Surgical traditions have at all times stood in the way of progress, and nowhere could a better instance of this be found than here, where the *noli me tangere* attitude of a past generation of surgeons towards interfering with the peritoneum still holds sway, and fortified by the dicta of high authorities constitutes the last citadel of a discredited theory.

That it should be so may be explained, partially at least, by the experience of operators who have confined their work to extraperitoneal methods, whether conducted from above or below. In all of these operations the surgeon works at the bottom of a deep and narrow wound, where space and light are at a minimum and the accurate placing of sutures wellnigh an impossibility. Indeed, many operators, impressed by the hopelessness of the task, make no attempt to suture the ureter.

The conditions are, however, vastly different when the ureter is explored intraperitoneally. By placing the patient in the exaggerated Trendelenburg posture and employing the median suprapubic route the intestines fall away to the upper abdomen, where they are securely walled off by one or more towels. If retractors are now used to separate widely the edges of the abdominal wound, a clear and uninterrupted view is obtained of the line of the right ureter throughout its lower two-thirds, while the line of the left ureter can be almost equally well observed if the meso-sigmoid is displaced inwards below and outwards above the pelvic brim. In thin subjects the ureters can be distinctly seen where they cross the brim of the pelvis, and by running a finger along their course, so as to displace the subperitoneal fat, it is possible to follow them with the eye for some distance both upwards and downwards.

But whether they are visible or not, they can be easily palpated with the fingers, and there should be no question of missing a calculus in the pelvic ureter. The stone can usually be displaced up to the pelvic brim, which is the most convenient place from which to extract it. It is surprising to find how accessible the ureter is at this point. In one of my patients, a thin female, it was possible to lift the ureter covered with peritoneum quite to the level of the skin wound. The portion of ureter about to be opened is surrounded with gauze, and the peritoneum divided over it. The stone is next grasped between the fingers and thumb of the left hand, and, while so held, the ureter is clearly divided over it in a vertical direction. Should there be any leakage, this is at once mopped up. The wound in the ureter is closed by two or more fine catgut sutures passed after the manner of Lembert. These, while just missing the mucous membrane, secure firm and accurate apposition of the cut edges, which are slightly inverted. The small opening in the peritoneum is sutured in the usual way, and, after removal of the gauze and towels, the abdomen is closed without drainage.

Owing to the inverted posture of the patient, and to the fact that intraperitoneal manipulations temporarily inhibit the renal function, there is usually no escape of urine when the ureter is incised; but if there should be any reason for dreading this, the ureter above and below the site of operation may be temporarily occluded by ligatures. This precaution was actually adopted by Knaggs and Sick in cases which will be alluded to presently.

In cases of pyonephrosis and hydronephrosis, where the ureter is distended and tense, it should be aspirated and temporary ligatures applied before opening it. Finally, if drainage of the operation area is thought to be desirable it can be readily and efficiently provided through a small opening in the flank, the drainage tube ending just short of the place where the ureter has been incised, and of course extraperitoneally. Where drainage is contemplated the stone should be pushed up as high as the level of the iliac crest before it is removed. In order to render the line of suture in the ureter still more secure it has been proposed to surround the tube completely with peritoneum, either by infolding the adjacent portions or by detaching a strip and wrapping it around the ureter. This addition to the operation is, I think, wholly unnecessary, and by unduly interfering with the blood supply of the ureter may be actually harmful.

The advantages claimed for the transperitoneal operation are:

1. That it, and it alone, enables us to clear up doubtful diagnoses. Thus, in the second of my cases the patient complained chiefly of pain on the left side, and although the *x* rays left no doubt as to the presence of calculi in the right ureter they also revealed a fairly well developed shadow on the left side, and as a matter of fact the diagnosis arrived at previous to exploration was bilateral ureteral calculi. Intraperitoneal palpation showed the left ureter to be free from a calculus, while the origin of the shadow of the pseudo-calculus was traced to a calcified mesenteric gland. Had the extraperitoneal route been adopted there would have been a second and wholly unnecessary operation performed in this case.

2. It is a less difficult operation than any of the extraperitoneal procedures. It ensures plenty of room and an abundance of light, and the operator is able to carry out the steps it entails with little or no disturbance of the surrounding parts, and with an amount of precision quite unattainable by any other method.

Probably in consequence of its denouncement by Morris and others, very few surgeons appear to have practised it.

F. J. Steward[16] relates a successful case. The patient suffered from haematuria and painful micturition, which were thought to be due to a vesical calculus. A suprapubic cystotomy was performed. Nothing was found in the bladder, but through its walls a stone could be felt in the lower part of the right ureter. Eight days later the abdomen was opened through the lower part of the right linea semilunaris, and the stone manipulated up the ureter to a point above the iliac vessels, from whence it was removed. The wound in the ureter was closed with fine silk sutures, passed after the manner of Lembert, and a second row united the edges of the peritoneum over it. A gauze drain was inserted. There was no leakage, and the patient made a satisfactory recovery.

Lane is credited by Freyer and several other writers with a successful case, but a study of the original report shows it to be an example of the combined intraperitoneal and extraperitoneal operation.

Lawford Knaggs[17] reports a case operated on after eleven years of suffering. Median laparotomy revealed a stone in the pelvic portion of the left ureter. The ureter was dilated and the left kidney hydronephrotic. The stone was pushed up to the loin, and the peritoneum over it divided. Strips of gauze were passed under the ureter above and below the stone. These served the double purpose of steadying the stone while the ureter was being incised and of preventing urinary leakage. The wound in the ureter was closed with fine silk sutures. A drainage tube was inserted through an opening in the left loin. Recovery took place without incident.

Another case is reported by Sick.[18] The stone was arrested 2 in. from the bladder. A temporary ligature was applied to the ureter before opening it. The wound in the ureter was stitched up and covered with peritoneum. In addition to a peritoneal drain, a catheter was passed through the bladder into the lower end of the ureter and left in position. The patient recovered, and there was immediate resumption of the function of the corresponding kidney.

My own cases are:

CASE I.

A female, aged 18 years, who was an inmate of the Sheffield Royal Infirmary in January, 1909. She gave a history of numerous attacks of severe pain in the left loin extending downwards to the bladder. There had been haematuria from time to time, but when it was absent the urine was normal. A large fluctuating swelling could be felt in the left renal region, and exploration showed this to be a hydronephrosis. The left ureter was dilated, but the ureteral sound could not be passed beyond the brim of the pelvis. A skiagram of the pelvis taken a few days afterwards showed a large oval stone in the left ureter. The patient was operated on in the manner already described. There was no leakage of urine during the operation, which was completed in a quarter of an hour. I did not employ any form of drainage. The wound healed aseptically, and she has had no more pain.

CASE II.

A male, aged 27 years, admitted to the Sheffield Royal Infirmary, September, 1909.

*History.*—Since the age of 13 years he has had frequent attacks of pain in the left side, accompanied by irritability of the bladder, and occasionally by haematuria. During the last few months the attacks had recurred almost daily. His urine was acid, and contained an appreciable amount of blood. Skiagrams of the abdomen and pelvis revealed the shadows of three calculi, close together, in the pelvic portion of the right ureter, and a less clearly defined shadow of a calculus in the left ureter. On being closely questioned he now admitted that occasionally he had felt slight discomfort in the right side, but was emphatic that the severe pain had always been in the left side. A diagnosis of bilateral ureteral calculi was arrived at, and the abdomen was explored. The three calculi in the right ureter were without difficulty pushed up to a point above the pelvic brim and removed. After closing the wound in the ureter and suturing the peritoneum over it the left ureter was examined, but no stone could be found. The cause of the shadow on the left side was eventually traced to a calcified mesenteric gland situated in the mesentery. The abdomen was closed without drainage, and aseptic healing resulted. He has had no return of his pain, and has gone back to his work.

Morris has called attention to the remarkable fact that occasionally the pain induced by a renal calculus may be referred to the opposite side of the body, and there can be no doubt that this case is an instance of the phenomenon as applied to the ureters.

I am much indebted to Dr. Rupert Hallam, Medical Officer in charge of the Electrical Department at the Royal Infirmary, for the excellent skiagrams accompanying this paper, and to Dr. A. E. Barnes, Medical Registrar to the Infirmary, for his kindness in assisting me to compile the table of references.

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# An Address

ON THE

# RATIONAL PUERPERIUM.

Delivered before the Edinburgh Obstetrical Society.

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Dr. Haultain's "plea for a rational puerperium," read before the Edinburgh Obstetrical Society last July,[1] was concerned wholly with one event in that period—namely, the resumption of the erect posture by the lying-in patient. The claim was then made that recumbency after the third day and in an ordinary case was unnecessary, and that it was rational management to allow the puerperal woman to sit up in bed on the second day and to rise on the third day. One hundred hospital patients were treated in this fashion, and it was stated that the morbidity was 3 per cent. Seven Fellows took part in the discussion which followed the reading of the paper, but, with one exception, the opinions expressed were critical. It seemed worth while, therefore, to raise the question afresh at the present time, both in view of the importance of the issues involved and because it might be anticipated that further evidence for or against early rising in the puerperium would be forthcoming.

Let me, in the first place, clearly state the question under discussion. The term "rational" has various meanings, and it may be well, in the first place, to decide upon its significance as applied adjectivally to the puerperium. The dictionary states that it may mean "endowed with reason," "exercising or able to exercise one's reason in a proper manner," or "having sound judgement"; but obviously these definitions refer to a person rather than to a thing or a state such as the puerperium. Another meaning is "based on or derived from reason or reasoning"; but this, although nearer the sense, does not quite reach it. Perhaps the best definition is "agreeable to reason, reasonable, sensible," or, looking at it from the negative side, "not foolish, absurd, or extravagant." I am not forgetful of the fact that "rational" has had a special signification in the history of medicine, and that it has been used, as opposed to "empirical," for those physicians who deduce their treatment of cases from general principles; but I hardly think that this distinctive shade of meaning is contained in the phrase "rational puerperium," although it may not be altogether inappropriate to it. "Sensible, reasonable, not foolish, absurd, or extravagant," are doubtless the senses which underlie the word in its present application.

I take it, then, that Dr. Haultain was thus employing "rational" in his communication of July last, and that he was making a plea for early rising in the puerperium as being a reasonable and sensible procedure, and one which was neither foolish nor extravagant, although clearly opposed to custom and fashion, and, he added, to tradition and religion.

Of course, the *lying-in* period—if we may still use that term—presents other problems than the time of rising from bed. Some of these, such as the employment of vaginal douches, the management of the breasts, and the regulation of the bowels, may be regarded as solved; others, such as the nature of the diet, the giving of ergot, and the wearing of a binder, can scarcely be considered as quite settled. But, in the meantime, these matters are to be left out of account, and our attention is to be focussed on the date of the resumption of the erect posture by the puerperal patient. It may, however, be doubted whether it is possible to neglect the consideration of these other matters; whether, indeed, these details are not all bound up together with the one under consideration, and constitute, as a whole, the well-being or the undoing of the puerperal period. Still, so far as it can be done, let us deal solely with the question of the date of rising.

For some ten years or more the question of early rising has been exercising the obstetric mind on the Continent; but, rightly or wrongly, British practitioners and teachers have scarcely considered the matter, and might not now be debating the subject had not Dr. Haultain, by his experiment in the Edinburgh Royal Maternity Hospital last spring, forced it upon their notice. But the question, as a matter of fact, presented itself not ten but thirty-five years ago, when Dr. William Goodell of Philadelphia[2] described the method of puerperium followed at the Preston Retreat. I quote from his paper: "On the morning following the day of her labour the woman slips into a chair whilst her bed is making. This is repeated once or twice a day until the fourth or fifth day, when she, if so disposed, gets up and dresses herself. No patient quits her bed against her will, yet the force of example is so great that very few care to stay in bed when they see their companions up and about." This is a very remarkable statement to have been made thirty-five years ago, for it is almost word for word the description which we have been getting from Germany during the past five or six years. But, further, Dr. Goodell adduced the following reasons for early rising: first, labour being a physiological process, it should not be made to wear the livery of disease; second, the upright position excites the uterus to contract, and lessens the amount and duration of the lochia; third, uterine diseases are hardly known among the nations whose women early leave their beds; and, fourth, experience has shown him (Dr. Goodell) that convalescence is rendered far more prompt and sure. These, let it be noted, are, with perhaps the exception of the third one, the very reasons now being brought forward in support of the early resumption of the erect posture in the puerperium.

From Dr. Garrigues's paper,[3] in which he criticizes the practice of Dr. Goodell, it may be learnt that the latter had some followers in America; but Dr. Garrigues was unable to find those who supported his views in Europe. "In the three chief countries of Europe," wrote Dr. Garrigues, "all the latest publications that have come

to my notice recommend an absolute rest in the horizontal position for one, two, or even three or four, weeks after parturition." He took up in detail Dr. Goodell's four reasons for early rising in the puerperium. Although parturition was a physiological process, it was one in which a transition from the normal condition to the pathological was extremely common, and the women of our time were no longer in the same physiological condition as in the infancy of mankind; other observers had not found that the upright position lessened the amount and duration of the lochial flow; and here Dr. Garrigues, rather curiously as it has since turned out, cited Dr. Küstner's observations. Passages in the classics could hardly be advanced as evidence that the women of antiquity who rose early did not suffer from uterine diseases, for the medical writers of that age often recorded such maladies; and Dr. Goodell's primary good results were probably due rather to his other measures, such as good food, protection from infection, and relief from pain. The rest of Garrigues's contribution was devoted to the consideration of the lie of the uterus during the puerperium, both in the horizontal and in the erect postures, and, arguing from the researches of Küstner and others, the conclusion was reached that the upright and sitting postures ought to be carefully avoided until involution had proceeded so far that the uterus had receded from the anterior wall of the abdomen and returned to the pelvic cavity. Garrigues would, however, allow his puerperal patients to turn from side to side in bed after the first twenty-four hours, and, in addition (and the addition is significant), he gave in entirely normal cases vaginal injections of a 1 per cent. carbolic acid lotion twice a day.

I have considered somewhat fully these early contributions (by Goodell and Garrigues) to this subject, partly because they have been almost entirely overlooked by later writers and partly because they enumerate very well the arguments for and against early rising in the puerperium which were used then, and are being employed now. Of course, at the time when they were written prophylactic vaginal douching in the puerperium was being largely practised, with the result that retention of the lochial discharge in the upper reach of the vaginal canal was not so likely to occur as it was when these injections began to be abandoned.

Dr. Garrigues's arguments and practice must have proved victorious over those of Dr. Goodell, for more than twenty years were to elapse before the matter was again discussed. In 1899 Küstner[4] raised the question of prolonged rest for women in the puerperium at the meeting of the German Society for Gynaecology in Berlin. He thought that for strong, healthy puerperal patients who had come through a normal labour, and had neither been infected nor had suffered lacerations, a rest in bed for several weeks was not only needless but actually harmful; they ought to rise on the third, fourth, or even on the second day after delivery. If, however, there had been lacerations (vestibular, perineal, vaginal, or cervical); if the patient had entered the clinic showing signs of infection; if she had a profuse gonorrhoeal discharge; if operative means had been employed in the delivery, or if the labour, although terminated by Nature, had been tedious, the longer rest in bed should be permitted. These contra-indications enumerated by Küstner are specially noteworthy in connexion with the practice of some of his followers which has not always been similarly restricted. Küstner reported that patients thus treated did not suffer in any way; they did not develop prolapse or retroversion of the uterus, the involution of the organ was not delayed but hastened, the functions of the digestive tract were greatly improved (good appetite, natural action of the bowels), and there was no difficulty with micturition, which occurred spontaneously and more frequently. In the discussion which followed the hearing of Küstner's experiences fears were expressed by Olshausen and others lest the involution of the supporting ligaments of the uterus might be interfered with; lest the abdominal walls might remain relaxed; lest thrombosis might be more frequent; and lest the pelvic musculature might suffer. At first, Küstner's method of treatment, breaking as it did through a practice so firmly established as rest in bed during the puerperium, met with little support; indeed, in many parts of the world it was not even discussed. Of late years, however, it has found advocates in various places, and has consequently excited animated controversy. Quite a considerable literature has already accumulated, and reference may be made to articles mentioned in [5] in the list of references at the end.

So far most of the records have been favourable to the new departure, and seem to show that after normal labours there is no need for prolonged rest in the horizontal posture. Too much weight must not, however, be placed on these results, for it is a well-known fact that the adoption of a new method is often followed by a series of satisfactory results, to be succeeded by less desirable reports, and, finally, by an altered view of the requirements of the matter, and by a modification of both the original plan of treatment, and of the proposed substitute for it.

Some of the results obtained may be here stated. Karl Mayer allowed his patients to rise when they liked, with the result that 4 rose on the third day, 40 on the fourth, and 100 on the fifth day; the morbidity was lower by 10 per cent. than among those who followed the old rule. Von Alvensleben (to whose work Dr. Haultain alluded) found that out of 100 cases 3 rose on the first day, 61 on the second, 19 on the third, and 18 on the fourth; the morbidity was less among them than in the general clinic, being 10 per cent. in the one and 17 per cent. in the other. Dealing with 235 parturient patients, Opitz found that 56 got up on the first day, 65 on the second, 27 on the third, 52 from the fourth to the sixth day, 21 on the seventh and eighth days, and 14 later; his results showed that retroflexion of the uterus was not made more likely by the early rising, that involution was satisfactory, and that convalescence was not interrupted. Opitz, however, admitted that it was difficult to prevent the newly-delivered woman leaving the hospital too soon, and referred to the fact that in private practice there might be danger owing to the puerperal patient being under less constant observation. Krönig[6] does not seem to have been under the influence of this fear, for 70 per cent. of his private patients (250 in number) got up during the first day; he also still further shortened the resting period for patients delivered under the influence of scopolamine and morphine injections, allowing a certain number to get up from eight to ten hours *post partum*. Krönig's published results have been very good, and he did not meet with any cases of thrombosis or embolism. He was of opinion that his patients were better able to nurse their babies, that uterine involution went on quite as well, that the lochia came away more readily, that there was less risk of accumulation of faeces in the rectum, that the appetite was better, and that, speaking generally, the bodily system was better able to resist infection. Rosenfeld was able also to report good results; but he restricted his patients to rising for one hour on the third or fourth day, and this time was gradually increased till they left the hospital on the eighth or tenth day. Simon's plan was somewhat similar; he kept his patients in bed for three days, but allowed them to get up to pass water if there was any difficulty with micturition; then they got up for an hour on the fourth day and for two hours on the fifth, if there was no fever; he insisted on the wearing of a binder, and instituted gymnastic exercises to strengthen the abdominal muscles (bending and rotating the trunk, etc.); and he believed that his patients made better recoveries. It is interesting to note that early rising in the puerperium seems to be leading to the introduction of the obstetric binder into some countries where the custom has been to do without it; this ought to be borne in mind by the enthusiasts who are calling out for its abolition.

So far the articles to which I have referred have been favourable to the proposed alteration in the management of the puerperium. In America also Hinchey has supported the new procedure. Gellhorn, however, is of an opposite opinion, and has cited the observations of Müllerheim (given at the meeting of the Berlin Obstetrical Society on December 13th, 1907) on more than a thousand women in Berlin, many of whom, although all discharged from the hospital as being in perfect condition, required weeks of rest and treatment for disturbances which had come on after their return home. He has also referred to Wagener's observations (given at the same meeting in Berlin) regarding Javanese women, who are well known to be among the most perfect specimens of womankind to

far as physique is concerned; yet these women suffered much from embolism and prolapsus uteri, and Wagener pointed out that by an old law in Java they were compelled to get up immediately after confinement and walk about, but not to attend to their domestic duties. Gellhorn had noticed the same thing with the women of Siam. Here, then, in Java we have custom insisting that puerperal patients shall rise but shall not do any work in the early days of the puerperium, exactly what the obstetricians of Germany are advocating; and, further, the Javanese women are perfect specimens as regards physique; and yet the frequency of embolism and prolapsus uteri among these women impressed Wagener. A still more serious criticism of the early rising régime is contained in the occurrence of a death from thrombosis and embolism in the case of a patient who was allowed to get up for one hour on the second day of the puerperium.[7] It has been maintained by some that early rising, instead of predisposing to thrombosis and embolism, will actually tend to prevent these accidents, but Fromme's observation must give us pause. At any rate in the presence of even slight signs pointing to commencing sepsis, it will be well to suspend the practice of early resumption of the erect posture. Hinchey[8] was of opinion that inasmuch as no cases of death from haemorrhage or embolism had occurred on account of early rising, and as there were even no good theoretical reasons for fearing such an accident, the subject might be dismissed until we had cause for alarm. The cause for alarm has now, however, been provided, in the case recorded by Fromme. Another critical paper, called forth by Dr. Haultain's article, has appeared within the past few weeks; it is from the pen of Mr. H. T. Hicks.[9] This writer is convinced that the ten or fourteen days' rest in bed during the puerperium is not only right but rational, and he therefore joins issue with Dr. Haultain and through him with German obstetric opinion in a very definite fashion; his views are mainly theoretical, but are worthy of consideration.

Such was the state of matters regarding the question of rising in the puerperium when I took over the Edinburgh Royal Maternity Hospital for the autumn quarter last August. I felt forced to reconsider the management of the lying-in period in the light of Dr. Haultain's results obtained in the same building three months previously, and I had before me the evidence which had been accumulated during the past ten years in Germany, along with the criticisms that had been made thereon. I found that in the quarter immediately preceding mine the practice in the hospital had been to allow the normal puerperal cases to rise on the fifth day; and I discovered two patients who had risen at that time suffering from phlebitis of the leg. Should I pursue the same plan as in previous years and allow rising on the ninth or tenth day in ordinary cases? Should I, on the other hand, pursue the German method and get the patients up on the second, third, fourth, or fifth day, leaving the choice absolutely in their own hands? Should I adopt a middle path, with or without any other mode of treatment superadded to it?

In making up my mind I was guided by the following considerations. It seemed to me that perhaps the prolonged rest of ten or eleven days in the horizontal position was, for ordinary healthy puerperal women of the class that used the hospital, unnecessary. The dorsal decubitus strictly maintained had been shown to be needless in Germany, and Dr. Haultain's statistics had proven that it might be abandoned in this country without accident in a series of one hundred hospital cases. At the same time, I was convinced that the horizontal position in the early days (say the first week) of the puerperium had distinct advantages, and was in some respects an admirable safeguard against certain accidents. I was also convinced that there were advantages associated with early rising which were not entirely dependent upon the erect posture thereby assumed; these were to my mind the strengthening of the abdominal and pelvic muscles, the improved digestion and better appetite, the easier regulation of the bowels, the more ready escape of the lochial discharge, and the greater feeling of general well-being, bodily and mental, produced by exercise. So the problem before me was the obtainment for the puerperal patients under my charge of the advantages associated with early rising without the risks which might be expected to belong to the resumption of the erect posture in the first days of the puerperium. If I could accomplish this it seemed to me that I had solved my problem; and if, incidentally, I found a way of doing so which did not run altogether contrary to established custom and usage I fancied I might congratulate myself on complete success.

Before proceeding to detail the plan which I was led to adopt, I must here refer to a matter which I believe to be of some importance, and to have a bearing upon this whole question of early or late rising in the puerperium. For several years I have abandoned the practice of vaginal douching as a routine procedure in the puerperium; I still occasionally resort to it, but only in special cases and for definite indications (especially the presence of signs of vaginal or cervical infection). The result of this change in the management of the puerperal state was not at first recognized by me, but gradually I came to suspect that it had something to do with a tendency to delay in the escape of the lochial discharge. Dr. Nepean Longridge, in his paper on The Blood-tight Uterus, has recently been telling the profession that he looks forward to a time when it will not be necessary for women to have lochia after normal labour;[10] but until that day dawn it will, I think, continue to be incumbent upon the obstetrician to throw no obstacle in the way of the escape of the puerperal discharge. At first I treated delayed lochia by slightly raising the upper end of the bed, using a pair of blocks with cup-shaped depressions in them for this purpose; and I was often able to trace distinct benefit to this simple device. But, largely through the persistent and strenuous advocacy of my Assistant Physician, Dr. Oliphant Nicholson, it began to be our custom to give to almost all the puerperal patients a pill containing sulphate of quinine and extract of ergot, with the occasional addition of $\frac{1}{4}$ to $\frac{1}{2}$ grain of digitalis folia. Whatever plan of management of the puerperium should be decided upon, it was resolved to continue the use of the puerperal pill (as it was called) as an integral part thereof.

In reading Krönig's paper[11] I had been impressed with the fact that his patients carried out exercises, consisting in bending the body down and raising it again and in bringing into action the gluteal and adductor muscles, in addition to rising early from the horizontal position. I found that Gellhorn, whilst protesting against early rising, was persuaded of the necessity of physical exercise. "Hercules himself," he said, "would have lost his strength had he been confined to bed for several weeks." He pointed out that Dr. Von Wild, in Cassel, had recommended calisthenics in bed during the puerperium to counteract the obstinate constipation then so prevalent; and he (Dr. Gellhorn) recommended that his patients, after twelve hours' rest on the back, should commence turning movements from side to side. His method is set forth in detail in his paper already referred to.[12] Professor Schücking, of Pyrmont,[13] has also found these exercises in the lying position (*Liegegymnastik*) most beneficial in the puerperium.

I determined, therefore, to recommend to such puerperal patients as we might regard as suitable the performance of systematized movements carried out in the horizontal posture. The movements were not to be forced upon any one, but were to be quite voluntary. The carrying out of the plan was greatly facilitated by the fact that one of the nurses in training was well acquainted with the *Liegegymnastik*, and as a matter of fact the supervision of the exercises was left entirely to the Sister and nurses.

Each patient was covered with a blanket and lay flat in bed with her arms by her sides. The Sister or nurse standing in the centre of the ward directed the exercises. The patients were directed to turn from the back on to the side; three times they rolled on to the one side; thrice they drew up the knees; and thrice they rolled on to the other side. Next they did exercises with the arms, first stretching them above the head, then flexing them upon the chest, then stretching them at right angles to the trunk, and finally placing them by the side; the arm exercises were carried out six times. Next they did breathing exercises six times, filling the chest with air, the arms being stretched by the sides the while. Finally, they rolled from side to side three times. In the majority of cases these movements were begun in the first day of the puerperium—that is, in the second twenty-four hours

after labour. In no case were they begun later than the fourth day. On the first day they lasted for about ten minutes, on the second for twenty minutes, and on the third for thirty minutes; they were never carried beyond that time. The nurse in charge regulated the time for each. No patient ever refused to perform the exercises, and no compulsion was used; the majority enjoyed them. In most of the cases the tone of the abdominal muscles when the patients left the hospital was above the average, and it was noticed that the result was poorest in phlegmatic women and in those who had shown no enthusiasm for the exercises. It could not be traced that the movements had any marked effect upon the action of the bowels. The tone of the abdominal muscles was tested in every case by my senior resident surgeon (Dr. T. Y. Finlay). He got the patient to contract her muscles voluntarily, palpated the abdomen during the act, and again when the muscles were lax; if in any case the space between the recti muscles was at all patent the tone was not considered good, but this was not often noticed; the cases were classified as good (81), fair (19), and bad (7), and a few (6) of the good were regarded as excellent.

The following figures are interesting. One hundred and fifty-two patients were treated in the hospital during the quarter; 9 of these came in for prematernity treatment and left before the time of delivery; of the remainder (143), 21 patients were not allowed to do the exercises; all the rest, being 122, performed the movements after their deliveries, but as in 15 of these cases Dr. Finlay was not able to test the tone of the abdominal muscles—these patients being under treatment at the close of the quarter, when Dr. Finlay left—they were subtracted from the total. One hundred and seven patients, therefore, who had been delivered during the quarter carried out the movements and were examined as to muscular tone before leaving. Of this number—

| | | | |
|---|---|---|---|
| 69 | began exercises on the | first | day after delivery. |
| 18 | ,, | second | ,, |
| 16 | ,, | third | ,, |
| 4 | ,, | fourth | ,, |

The 69 patients who did exercises from the first day onward were mostly normal cases. Some had forceps for delay, two or three had adherent membranes requiring an intrauterine douche, two were breech cases, and one was an occipito-posterior position. In the 18 cases in which the exercises were begun on the second day there had been some interference or anomaly. For instance, there was a case of forceps for persistent left occipito-posterior position; there was hydramnios with an anencephalic fetus; there was slight albuminuria: there was a case of twins; there was one of cervical cysts; there were several breech presentations; there was a prolapsed cord and dead fetus; there was syphilis with a dead fetus; there was epilepsy; and there was a *post-partum* haemorrhage. Among the 16 in which the movements were begun only on the third day there had been more serious irregularities, such as craniotomy (2), eclampsia (4), albuminuria (3), *post partum* haemorrhage, and induction of labour. The 4 patients who began so late as the fourth day were a case of collapse after delivery of twins, two cases of accidental haemorrhage, and one case of persistently rapid pulse in which thyroid extract had been given during pregnancy for marked obesity. I think it will be generally admitted that many of the thirty-eight patients who began exercises later than the first day could not have been allowed, even by those who most enthusiastically advocate early rising, to leave their beds by the third day; yet they were able to perform exercises in the horizontal position and to benefit from them, as was shown from the dates on which they were able to leave the hospital and by their general condition. It will be remembered that 21 cases were not considered suitable for the *Liegegymnastik* or did not get it; of these there were 4 who were delivered before the plan of giving the exercises was adopted, there were 5 cases of eclampsia, there were 3 of inevitable abortion, there was a case sent into the hospital septic (where death took place), there were 2 cases of heart disease (1 a very serious one), there were 2 cases of influenza (1 complicated with rheumatism), there was 1 of albuminuria and pneumonia, 1 of craniotomy (a death), 1 of syphilis and hystero-epilepsy, and 1 of a patient who gave birth to a macerated fetus, got up on the fourth day, and left the hospital against orders.

With regard to the date of resumption of the erect posture, each of the cases in which exercises had been performed was judged on its own merits, with the result that 43 rose on the seventh day, 38 on the eighth, 19 on the ninth, 4 on the tenth, and 1 each on the sixth, the eleventh, and the twelfth. Towards the beginning of the quarter the eighth day was regarded as the routine time for leaving the horizontal position, but towards the latter

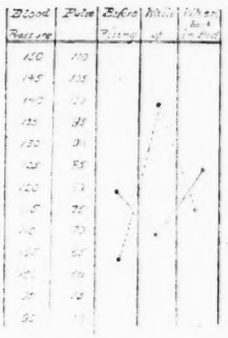

Fig. 1.—No. 104. Normal labour. Rose on seventh day.
—— Blood pressure; ..... Pulse.

| | | | |
|---|---|---|---|
| 12.20 noon ... | ... | Pulse, 64<br>Blood pressure, 120 | Before rising. |
| 2 p.m. ... | ... | Pulse, 100<br>Blood pressure, 110 | While up. |
| 9 p.m. ... | ... | Pulse, 76<br>Blood pressure, 125 | Back in bed. |

part of the term many of the patients got up on the seventh. A very noticeable feature in these cases was the absence of the usual phenomena which follow upon rest for some days in the horizontal position; the patients, for instance, did not experience the same feeling of weakness in the limbs, dizziness, etc., as usual. It seemed, therefore, as if the seven or eight days' rest in bed with the exercises was followed by a more immediate return to the condition of normal health and strength than after the longer period of rest without the exercises, such as had

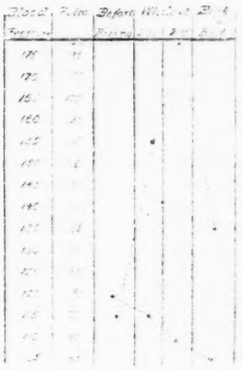

Fig. 2.—No. 92. Normal labour. Rose on seventh day.
—— Blood pressure; ..... Pulse.

| | | | |
|---|---|---|---|
| 11 a.m. ... | ... | Pulse-rate, 76<br>Blood pressure, 120 | Before rising. |
| 2.30 p.m. ... | ... | Pulse-rate, 116<br>Blood pressure, 116 | While up. |
| 2.35 p.m. ... | ... | Pulse-rate, 138<br>Blood pressure, 110 | |
| 3 p.m. ... | ... | Pulse-rate, 96<br>Blood pressure, 106 | Back in bed. |

prevailed during my previous term of office in the Royal Maternity Hospital.

When the rising took place upon the seventh or eighth days it was noticed that there was generally a rise in the pulse-rate accompanied by a fall in the blood pressure. In fifteen patients the blood pressure was taken before rising, during the time the patient was up, and again after she went back to bed again. Some of the results were very interesting; in one instance of rising (No. 104, Fig. 1) on the seventh day, the pulse before rising was 64, while the patient was up it was 100, and after her return to bed it was 76, while the blood pressure for the three corresponding times was 120, 110, and 125; so that here the rise of the pulse-rate and the fall of the pressure were very evident. In another instance (No. 92, a nervous woman, Fig. 2) the pulse-rate before rising was 76, while

the patient was up it rose to 116, and five minutes later it was found to be 138, when she went back to bed again it fell to 96; the blood pressure for the four corresponding periods was 120, 116, 110, and 106; here, then, it was seen that not only did the pulse-rate increase and the pressure fall when the patient rose, but the readings varied from 116 to 138 whilst the woman was up; after getting back to bed again neither the rate nor the pressure returned to what they were before. In another case (No. 94, Fig. 3)

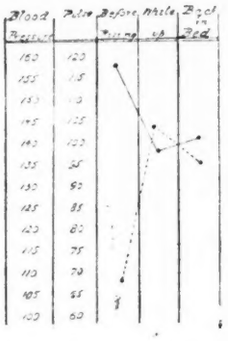

Fig. 3.—No. 94. Normal labour. Rose on seventh day. —— Blood pressure; ..... Pulse.

| | | | |
|---|---|---|---|
| 11 a.m. | ... ... | Pulse-rate, 68<br>Blood pressure, 158 | Before rising. |
| 2.30 p.m. | ... ... | Pulse-rate, 104<br>Blood pressure, 138 | While up. |
| 3 p.m. | ... ... | Pulse-rate, 96<br>Blood pressure, 142 | Back in bed. |

of rising on the seventh day the pulse-rate before rising was 68, it rose to 104 whilst she was up, and fell after going back to bed to 96; the blood pressure for the three corresponding times was 158, 138, and 142. In another case (No. 99, Fig. 4) the rate and pressure were taken before rising, whilst the patient was up, and on the succeeding day; in this instance, the rate before rising was 51, it rose to 76 while she was up, and had fallen next day to 48, while the pressure for the corresponding times was 124, 120, and 128. These four were all seventh day risers who began exercises on the first or second days. In only one out of the fifteen tested cases

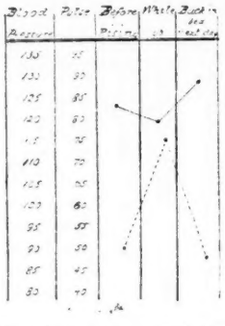

Fig. 4.—No. 99. Normal pregnancy. Retained membrane. Rose on seventh day. Exercises began on second day. —— Blood pressure; ..... Pulse.

| | | | |
|---|---|---|---|
| 12.15 noon.... | ... | Pulse-rate, 51<br>Blood pressure, 124 | Before rising. |
| 2.35 p.m. ? ... | ... | Pulse rate, 76<br>Blood pressure, 120 | While up. |
| 12 noon next day | | Pulse-rate, 48<br>Blood pressure, 128 | Back in bed. |

(No. 102) did the pulse-rate fall when the patient got up; this was a seventh day riser, who began exercises on the first day; the pulse before rising was 78, it was 64 while she was up, and it was 80 after she went back to bed; the blood pressure in this case also was anomalous, for it continued falling after she went back to bed, being 120, 110, and 100 at the three takings. Another anomalous case (No. 103) was one in which the pulse-rate increased from 72 to 88 on rising, and on going back to bed rose still further to 104; the blood pressure in this same patient fell from 135 to 110, and rose again to 140. In a patient (No. 96) who did not rise till the ninth day (a forceps case) the pulse followed the usual plan of deviation, being 80, 100, and 76 respectively, whilst the blood pressure was 112, 103, and 103. Although the pulse-rate increased in one case (No. 91) from 76 to 96, and fell again to 84, the pressure remained very much the same—namely, 120, 120, and 116.

These results, although they differ somewhat among themselves, prove very decidedly that rising from bed at the end of the first week produces a very distinct effect upon the pulse-rate and the blood pressure; and the change nearly always takes the form of a quickening of the pulse (often to the extent of 20 beats per minute, and sometimes to that of 40), while the blood pressure generally falls from 4 to 10, or even 20 points. The change in the pulse-rate is much more constant than in the blood pressure, however, and is far more than occurs in ordinary (non-puerperal) circumstances.

There was no mortality among these 107 patients who performed the exercises; and, what is perhaps more striking, there was no morbidity. That is to say, there was not a single case in which the temperature was above 100° for more than one reading, with a pulse of more than 90. In a few instances there was a pulse of between 90 and 100 for three consecutive readings, but in these cases the temperature was not above normal. It will be said that they were selected cases. So they were; but I have named the conditions which existed in some of them (hydramnios, twins, albuminuria, craniotomy, eclampsia, *post-partum* haemorrhage, and even accidental haemorrhage), and I believe it will be readily admitted that the selection was made within very wide limits.

With regard to displacements of the womb, discovered before the patients left the hospital, there were three instances of slight deviation of the uterus to the right side, and two cases of anteversion (a more marked degree than is to be counted normal is meant). Among the patients who performed exercises there were four in whom the uterus was found to be retroverted; one of these had had craniotomy performed, and she was sent to the Royal Infirmary for treatment, but was told there that the displacement was insufficient to necessitate the wearing of a pessary; another had had one eclamptic fit before admission; another was an epileptic, and had induction performed; and the fourth was a rheumatic subject. In a few cases the uterus was found to be larger than usual when the patients left the hospital, but the enlargement was comparatively slight.

Now, what effect have these observations upon the whole question of the rational management of the puerperium? With the facts before us are we to make any marked alteration in the routine treatment of the lying-in period, and, if so, what form shall the alteration take, and to what extent shall it be carried? To my mind the following conclusions are justified:

1. I think it is permissible to reduce the period of rest after labour for the ordinary hospital patient to a small extent, say, from ten or eleven days to from eight to nine; after a normal labour, therefore, the puerperal patient would resume the erect posture on the eighth or ninth day.

2. The carrying out of systematized exercises in the horizontal position during the early days of the puerperium up to the day of rising helps to keep the muscles in good tone, saves the patient from ennui, and facilitates a return to the normal after the resumption of the erect posture.

3. When systematized exercises (or *Liegegymnastik*) are carried through it may possibly be found to be safe to allow the patient to rise on the seventh instead of on a later day.

4. The consideration of the day of rising in the puerperium cannot be dissociated from the discussion of the other phenomena of that period; the rate of the pulse, the amount of the blood pressure, the temperature, and other things must all be scrutinized under the novel circumstances produced by changing the date of rising; and the result of such a scrutiny is to show that rising even on the seventh and eighth days causes a very distinct rise in the pulse-rate, with, generally speaking, a fall in the blood pressure. The disturbance in the circulation thus produced cannot be left unconsidered, and it may have a recognizable effect upon the after-health of the patient.

5. Neither can the employment of other measures in the puerperium be left out of account; if exercises in the recumbent posture be employed, and if the puerperal pill be given, then there will be no loss of muscular tone, and no disturbance of the rate of uterine and vaginal involu-

tion, and the escape of the lochial discharge will be facilitated; under these circumstances the necessity for earlier rising will disappear with the accomplishment by other means of the results alleged to be obtained by it, and the risks associated with the abandonment of the horizontal position will be avoided.

6. Whatever plan of management of the puerperium be adopted, there will be a necessity to distinguish normal cases from morbid ones, and the tendency to mete out the same treatment to all patients must be checked. The first advocates of earlier rising in the puerperium laid very considerable emphasis upon the contraindications to the procedure which they regarded as binding; but in later writings these contraindications have been somewhat obscured or slurred over. The contraindications to early rising are real, and they are tacitly, if not openly, admitted. My opinion is that the contraindications to the performance of exercises in the horizontal position are also real—they were present in 21 out of the 143 cases with which I had to deal—but it is also my belief that it will be found to be safe to practise the *Liegegymnastik* in many cases in which rising on the third day should be forbidden.

7. When the attempt is made to carry over into private practice from the hospital such a change in the management of the puerperium as is entailed in rising from bed on the third day, all the considerations adduced above will require to be taken into account. It is, I think, the case that rest in bed in the puerperal period is longer than need be, and possibly some shortening of the time so spent might be advantageous; further, the strict maintenance of the dorsal posture need not be insisted upon, and the patient may be encouraged to turn freely about while retaining the horizontal position. I should not otherwise alter the ordinary management of the puerperium in private practice.

Perhaps the crux of the whole matter is contained in the way we regard the puerperium. We may maintain, with Dr. Goodell, that labour is a physiological process, and ought not to be made to wear the livery of disease; but we must be prepared to own that labour has a mortality, which in maternity hospitals occasionally is as high as that following the performance of hysterectomy by a skilled gynaecologist. In the Edinburgh Royal Maternity Hospital there were thirteen maternal deaths in 1908, and not fewer will be recorded for 1909. It may be said that hospital statistics cannot fairly be used to decide regarding ordinary cases, but it is precisely into hospital practice that it is proposed to introduce third-day rising. We may more correctly say that labour is a physiological process which, under present-day conditions, borders so closely on the pathological that it not infrequently passes over into it; and we may add that the puerperium which follows this physiological process (with the tendency to become pathological) may also become pathological, may even become pathological when the preceding labour has remained physiological. It seems to me that the great guiding principle of midwifery practice is to prevent the passing of the physiological into the pathological. We give our students a hundred lectures not to enable them to deal with the normal cases which have no tendency to pass into the dangerous group—far fewer lectures would suffice for that—we give them this teaching to enable them to manage the few abnormal cases, to prevent them, or to cure them when prevention fail. The whole system of obstetric asepsis has been elaborated not so much to benefit the normal labour in which there is no need for interference as to save from the danger of infection the abnormal case in which there is much interference. We are legislating, so to say, always for the unusual, although we apply the laws both to usual and to unusual. It is the exceptional cases we have to keep in full view. I feel sure that every one will agree that it is wise to scrutinize closely any proposal to abandon any one of the precautions with which we have surrounded the puerperal period. The prolonged rest in the horizontal position may be irksome; it may be found possible to shorten it a little without risk (more especially if exercises are introduced), but we must be careful to retain the safeguards which experience has adopted for the advantage not only of the normal cases which might do without them, but also of the abnormal cases which could not dispense with them without an increase of danger. Rather than run any such risk the practitioner may find it wise to retain the *status quo ante Küstner*.

*Pregnancy* is a nine months' period of stress and strain during which every tissue and organ of the mother's body is working, so to say, at high pressure in building up the fetal organism and in adapting all the maternal structures to the new requirements. So long, as Professor P. Bar pithily and precisely puts it, as there is *foetus sanus in matre sana*, no harm results; but the path of safety is a very narrow track, and the pregnant woman needs every care that her medical attendant gives to her. Dr. Haultain's remark, interjected into his reply on the discussion following his paper last July, to the effect that he considered a fortnight's rest would be more beneficial to the working woman before rather than after her confinement,[14] meets with my cordial approval so far, at any rate, as it refers to care in pregnancy. *Labour*, again, is a time of marked stress and strain, for the act of childbirth is admittedly one involving great muscular exertion accompanied by intense suffering. During this time the parturient patient needs and freely receives the obstetrician's constant and watchful care. The *puerperium* is no less a time of stress and strain, for now the results of nine months' upbuilding have to be safely and speedily removed, the changes which took place in the maternal organs, both in the genital sphere and outside of it, have to be undone, and a great process of alteration and adaptation to new circumstances has to be carried through. To take but one phenomenon in it, the uterus, which after the birth of the child and placenta weighs about 35 oz., is reduced during the short term of the lying-in period to about 1 oz., a change which entails extraordinary rapidity and activity of absorption and excretion. Further, a new function, that of lactation, has to be established; it likewise is a physiological process, but liable to morbid developments or to imperfect performance. On the whole, it does not seem to be unreasonable or irrational to allow hospital patients a week or eight days' rest in the horizontal position after a time of stress of nine months, and to the class of private patients perhaps three or four days might be added with advantage. In both cases exercises in the lying position could be relied on to keep the muscular system in tone and to prepare for the resumption of the erect posture.

In conclusion, I have to thank Drs. T. Yule Finlay and Kelman Macdonald, the house-surgeons during the autumn quarter, for the careful way in which they ascertained the results of the *Liegegymnastik* and for the labour they bestowed upon the estimation of the blood pressure and other clinical details.

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THE annual report of Livingstone College for the year 1908-9 expresses satisfaction at the growing appreciation of the system of training adopted at the college. In this connexion it instances the speeches made on Commemoration Day by the Master of Trinity and Professor Alexander Macalister, and Dr. Stein, the Central Asian explorer, allusions to which have already been made in these columns. Poplar Hospital for accidents, it seems, is its training ground for students in minor surgery, and it is hoped to secure at an early date the services of a member of the resident staff as a special teacher of Livingstone College students. Medical missionaries, it is pointed out, are not encouraged to perform operations, but the advantage of their being acquainted with minor surgery is evidenced by the case of Dr. Stein. The average number of students under instruction each term during the year was twenty-five.

# CARDIOLYSIS (PRECORDIAL THORACOSTOMY) IN HEART DISEASE.

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In the early part of 1905 my friend and colleague the late Thomas Harris asked me to undertake for him the operation of "cardiolysis" in an old-standing case of adhesive mediastino-pericarditis. At that time I had not heard of the operation, which had been introduced by Brauer in 1902, and the only information which we possessed upon the subject was contained in a short note of Brauer's communication to the Heidelberg Congress of Physicians of the latter year. The operation appeared, however, to be so reasonable and to offer such prospects of benefit that I decided to carry it out. In several respects subsequent considerations have shown that details might have been improved upon, and the report which follows has therefore been delayed, not only on account of the early death of my colleague, who was himself a distinguished authority upon the pathology of mediastino-pericarditis, but also in the hope that further experience might render this communication of more value. As, however, four years have gone by without my seeing another case, and as it may be long before another is met with, it appears advisable now to describe a tentative operation which was certainly of benefit in one case, and which presents possibilities of greater value in others.

Adhesive or indurative mediastino-pericarditis is a rare sequel of pericarditis in which the cardiac and parietal layers of the pericardium have become united together, while the parietal layer is again connected by adhesions with the surrounding parts, including that portion of the chest wall which overlies the anterior surface of the heart. The condition, which may follow rheumatic pericarditis, chronic pleurisy, or empyema of the left side, and periostitis of those ribs which lie in relation to the heart, is fully described in Harris's *Indurative Mediastino-Pericarditis* (London, 1895) and in many medical works, so that it is here necessary only to enumerate briefly the more important results of the fixation of the heart to the chest wall which is thus produced.

At every systole the left ventricle is obliged not only to empty itself, but in so doing to drag forcibly upon the continuous adhesions and bands which fix it in all directions to the chest wall, lungs, mediastinum, and diaphragm. It is thus placed at a great mechanical disadvantage, and its muscular power is insufficient for the effort required. The result is seen locally in that with each systole the bony thorax is drawn in, while with each diastole it is thrust out; the ordinary "apex beat" is, in fact, replaced by a forcible rising and falling of the chest wall which obviously demands great effort. As a sequel of this excessive strain the myocardium proves unequal to the work of carrying on the circulation, and there ensue the phenomena of extreme congestion—dyspnoea, bronchitis, pulmonary oedema, cyanosis, congestion and enlargement of the liver and spleen, ascites, jaundice, albuminuria, general anasarca, and ultimately death from cardiac insufficiency. Associated with these conditions there are also usually found great swelling of the veins of the neck, regurgitant pulsation in the more prominent of these, and at times inspiratory swelling of the external jugular; the pulse is often very weak and irregular, and pulsus paradoxus—the pulse becoming smaller during the act of inspiration—is not uncommon.

Rest in bed, with careful dieting and medical treatment, is in these cases usually followed by great improvement, but as soon as the patient begins to get up and go about symptoms return, and the ultimate issue is probably always fatal.

Brauer's suggestion was based upon the view that the essential factor in the production of this chain of symptoms is the fixation or anchoring of the heart to the bony wall of the thorax, and that if this could be relieved its muscle might regain sufficient power to carry on the needs of the circulation. Such relief can be given by removing that portion of the bony thorax to which the heart is attached, so that any adhesions which remain are connected only with yielding tissues, and Brauer applied the term "cardiolysis" to the operation which was successfully carried out for him by Petersen and Simon. Fourteen cases have now been reported by German physicians and surgeons, and one recently by Poynton and Trotter (*infra*), the results being distinctly encouraging; while our own, which is, so far as the writer knows, the first to have been performed in this country, although not a complete success, shows clearly the practicability and value of the operation.

## Case.

*History.*

H. W., a lad aged 15, began to suffer in 1900 from shortness of breath and rheumatic pains in the knees. At the end of 1900 he was admitted to Dr. Harris's wards in the Manchester Royal Infirmary with double pleurisy, bronchitis, and general oedema. The area of cardiac dullness was enlarged; the pulse presented marked weakness on inspiration, and the jugular veins showed inspiratory swelling; the liver was enlarged, but without ascites or jaundice; the temperature presented an occasional evening rise; tubercle bacilli were not found in the sputum. From the right chest was removed 28 oz. of clear serous fluid. A few days later ensued an attack of acute pneumonia at the base of the left lung with a long period of remittent pyrexia, but eventually the lad made a fair recovery.

Two years later H. W. was again admitted to the infirmary with symptoms of cardiac weakness, indications of pleural adhesions and thickening on both sides of the chest and ascites. From this time until the beginning of 1905 he was repeatedly an in-patient, with symptoms similar to those already described. On each occasion he underwent temporary improvement in bed, but quickly relapsed on getting up again. In January, 1905, he was again an in-patient, remaining for two months with but little improvement, and Dr. Harris then suggested cardiolysis. The lad refused and returned home, but almost immediately he again became very ill, and in March, 1905, was admitted to the surgical wards.

At this time he presented marked cyanosis of the face and body, but he had then no oedema of the legs. The veins of the neck expanded greatly in inspiration. The pulse was of low tension, dicrotic, and beating at the rate of 65 to 70 a minute. Cardiac dullness extended from 1½ in. to the right of the sternum almost to the mid-axillary line on the left side. An impulse could be felt behind the fifth left rib almost 1½ in. internal to the mammary line, but there was no visible apex beat, no epigastric pulsation, and no general movement of the chest wall. There were no signs of endocarditis or of valvular disease.

Troublesome cough was associated with a scanty mucoid expectoration which furnished no tubercle bacilli. Dyspnoea was very marked, rendering it almost impossible for him to lie down, but the chest movements were very slight. The base of the left lung presented an extensive area of dullness with weakened breath sounds. Ascites was well marked; the liver extended 2 in. below the costal margin; the urine (sp. gr. 1024) contained albumen; splenic enlargement was not detected. The mental condition was markedly dull and heavy, and was at that time regarded as due to the cardiac trouble.

*Operation.*

The operation was performed on March 30th, 1905, Dr. A. E. Thompson administering chloroform, and the patient being at first in a semi-recumbent position. The anaesthetic was at first taken well, but before the operation was commenced there was spasm of the respiratory muscles and he became very cyanotic. Under artificial respiration and oxygen he rapidly recovered, and ether and chloroform were then given by the open method

in about equal quantities, after which there was no further trouble.

I made a semilunar incision about 9 in. in length with the centre of its base to the right of the sternum and the centre of the incision an inch internal to and on a line with the left nipple, thus turning over a large flap to the right and exposing a great part of the sternum; this flap contained the origin of the left pectoralis major, and was carried down to the plane of the ribs and intercostal muscles, somewhat free bleeding being arrested. A Gigli's saw was then carefully passed behind the sternum about 1 in. above the line joining the nipples, and the bone was sawn transversely across at this level. The same process was repeated at a line 1 in. below the level of the nipples. With bone forceps the fourth and fifth costal cartilages on the right side were then cut across close to the sternum, and their fellows on the left side were cut across at the costo-chondral junction. There was thus isolated a large square piece of the centre of the sternum with the fourth and fifth left costal cartilages, and this was carefully dissected up from the subjacent pericardium. This process was much more simple than had been anticipated, and there were no dense adhesions. A prominent gland was removed from the anterior mediastinum for purposes of bacteriological diagnosis, but inoculation experiments showed no evidence of tubercle. Haemorrhage being finally and fully arrested, the flap was replaced with a small gauze drain.

The operation caused no shock, and at the end of it the pulse was distinctly stronger than it had been, while the inspiratory swelling of the veins of the neck disappeared.

*After-History.*

For a few days after operation cough was troublesome, but the cyanosis rapidly improved and the pulse continued to gain strength. On the ninth day the ascites had so far diminished as to lessen the girth of the abdomen by 3 in. There was no difficulty in lying down in bed. At the end of a month the patient was able to get up, and a few days later to walk up and down stairs without trouble.

Six weeks after operation the patient was feeling well and able to go out. Ascites had disappeared, and the dullness at the base of the left chest was much diminished. Cough was hardly at all troublesome. The cardiac dullness was much diminished in extent, reaching from a point just internal to the left mammary line to half an inch to the right of the ster border. The pulse was regular, steady, and 72 a minute, with no trace of pulsus paradoxus, which had occasionally been observed before operation. Congestion of the face, neck, and chest had already disappeared. The patient and his parents had not seen him so well for years, even after six or eight weeks of confinement to bed in hospital.

*Present Condition.*

Some time after H. W. left the hospital his mental condition began rapidly to deteriorate, and he was eventually placed in an asylum. I thus lost sight of him until June of the present year, when I had an opportunity of examining him in the Lancashire County Asylum at Winwick; he is quite idiotic and very mischievous, the mental condition being regarded as congenital. He has on the whole good bodily health, but his mischievous tendencies require his being a good deal confined to bed. In January of 1908 he presented some signs of heart failure, and had some jaundice and ascites, which disappeared after rest and paracentesis, and have not returned. Albuminuria has been found occasionally. In the beginning of 1909 he had some temporary dyspnoea and oedema of the feet.

His general appearance was healthy and cheerful, although idiotic. The pulse was 80, and quite regular and normal. There was no venous distension, but the face presented very slight cyanosis. The abdomen was normal, as was the urine. In front of the chest was the prominent gap left by the operation, and the lower end of the sternum had been thrust considerably forwards. The position of the scar with the puckered depression left by the gauze drain are shown in the accompanying sketch taken from a photograph kindly obtained for me by Dr. Rodgers, but the restlessness of the patient made photography difficult. In brief, the physical condition is on the whole satisfactory, and would probably have been more so but for his restless, mischievous, and irresponsible habits.

**Before passing to the consideration of certain points raised by the above case it will be convenient briefly to summarize the fifteen operations hitherto reported as "cardiolysis," these being the only cases known to me in which operation upon the thorax has been undertaken with the object of freeing the heart from adhesion to its**

| Case. | Reporter and Reference. | Operator. | Anaesthetic. | Parts Removed. | Result. | Remarks. |
|---|---|---|---|---|---|---|
| I. | Brauer, Petersen, Simon, *Centralbl. f. Chir.*, 1903; Supplement, p. 41 | Petersen and Simon | Local anaesthesia, chloroform, ether | Ribs and cartilages in front of heart | Doing heavy work 4 years later | These three cases appear to be identical with those referred to by Blauel (*Centralb. f. Chir.*, 1907, No. 33) and by Ensgrüber (Dissertation Tübingen, 1907). |
| II. | Idem | Idem | Ether | Part of sternum and ribs | Great improvement, but died later from broncho-pneumonia | |
| III. | Idem | Idem | Chloroform and ether | Part of sternum and ribs | Great improvement. | |
| IV. | Beck. *Arch. f. klin. Chir.*, 1904, Bd. 73 | Beck | Morphine, chloroform, and ether | 3rd, 4th, 5th, and 6th costal cartilages and part of ribs with periosteum | In good health after 18 months | These three cases are complicated by the coexistence of tuberculous disease of lungs or pleura and by operations thereon. |
| V. | Idem | Idem | — | 3rd, 4th, 5th, 6th, and 7th cartilages with ribs and periosteum | Improvement, later thoracoplasty for empyema | |
| VI. | Idem | Idem | — | As in Case IV. | ? | |
| VII. | Treupel, *Münch. med. Woch.*, Oct. 10th, 1905, p. 1966. | Borkenheimer | ? | 4th and 5th ribs ... ... | Some improvement | Symptoms not very typical, but heart large. |
| VIII. | Schmidt, *Deut. med. Woch.*, Nov. 16th, 1905, p. 1859. | Lindner | ? | 4th and 5th ribs from sternal border to anterior axillary line | Marked improvement, working as wagon cleaner | Possibly identical with Case X. |
| IX. | König, *Centralbl. f. Chir.*, 1907, No. 27 Umber, *Therapie der Gegenwart*, 1905, No. 1 | König | Morphine, ether and chloroform | 2nd, 3rd, 4th, 5th, and 6th cartilages and ribs (8 cm. in all). Periosteum not removed | Immediate relief of heart; great and steady improvement up to 6 months | No cardiac trouble up to death after 2½ years from miliary tubercle. |
| X. | Meyer-Westfeld, *Münch. med. Woch.*, 1905, No. 40 | Lindner | Chloroform | 4th and 5th cartilages and ribs to anterior axillary line | Tedious recovery; ultimate return to work | |
| XI. | Küttner, *Münch. med. Woch.*, 1906, No. 28 | Küttner | Ether | 4th, 5th, and 6th cartilages and ribs, with periosteum as far as anterior axillary line | "Rapid recovery" | |
| XII. | Danielsen, *Beit. zur. klin. Chir.*, 1906, Bd. 51 | Küttner | Ether | 4th, 5th, and 6th cartilages and part of ribs; periosteum removed | Considerable improvement and return to work | |
| XIII. | Urban, *Wien. med. Woch.*, 1908, No. 8, p. 395 | König | Local; followed by chloroform and oxygen | 4th, 5th, and 6th cartilages and ribs; periosteum retained | Very good recovery | |
| XIV. | Wenckebach, BRITISH MEDICAL JOURNAL, Jan. 12th, 1907, p. 63 | Koch | Chloroform | 4th, 5th, 6th and 7th cartilages and ribs and left border of sternum | No great improvement | |
| XV. | Poynton and Trotter. *Lancet*, June 19th, 1909 | Trotter | — | 3 or 4 in. of 4th and 5th ribs, leaving posterior periosteum | Some improvement | |

bony wall. I have omitted all details as to the symptoms before operation, as the cases are generally of a type similar to our own with marked evidence of cardiac failure, which was not relieved, or was only very temporarily relieved, by complete rest and medical treatment.*

In addition to these 15 cases we have also to note that an operation similar in some respects to Brauer's "cardiolysis," but differing in its objective, has been suggested by Alexander Morison,[1] and carried out for him in two cases by Stabb. Morison holds that in cases of cardiac hypertrophy, as met with in aortic disease and angina pectoris, the heart has not room to exercise its full power of compensation, and that when great enlargement occurs it is confined within the chest, so that on the one hand its power of work is limited, while on the other its action causes pain (angina). He therefore suggested a removal of part of the chest wall in front of the heart, "both when the mere bulk of the organ is the chief feature in the case, and when, as in irremediable mediastinal tumour, the heart is secondarily involved in the neoplastic growth." He refers without detail to one case in which this had been done "with benefit." He also records fully an example of aortic stenosis and regurgitation with marked ventricular hypertrophy and anginoid pain in a lad from whom Stabb removed 4½ in. of the fifth and 5 in. of the sixth rib with their cartilages and periosteum; the general condition and the pain were greatly relieved. In these cases there was no question of dealing with pericardial or extrapericardial adhesions, but they are relevant to the present subject both because the surgical methods are analogous and because the benefit resulting from "cardiolysis" may perhaps be due, in part at least, to giving the heart more room for action, especially in cases such as our own in which marked adhesions are not found.

We are thus provided with a total of 18 cases in which the bony wall of the thorax has been removed in front of the heart for the relief of diseases of that organ, the majority of these having been undertaken on Brauer's theory of relieving adhesions, while two aimed at, and possibly more succeeded in, relieving pressure. The operation is described as "cardiolysis" by those who adopted Brauer's view, while Morison uses the term "thoracostomy," as he does not aim at dealing with adhesions. There seems no reason, however, why the more limited term "cardiolysis" should not be applied to all operations for freeing the action of the heart, whether that be limited by adhesions or by mere want of space, or, if this be objected to, the expression "precordial thoracostomy" might be used to distinguish this from thoracic operations undertaken with other and quite different objects.

As regards this operation it has been conclusively shown not only that it can be performed with reasonable safety, but that in suitable cases it may prove of great value. So far as the question of safety is concerned, we can at present only say that there is no recorded instance of death or any minor untoward result, although certain dangers have to be encountered, especially perhaps in connexion with the anaesthesia.

With regard to the results we may classify the cases as follows: The eight cases in our table numbered I, IV, VIII, IX, X, XI, XII, and XIII appear to have been most satisfactory; four of these certainly returned to their work, and although we have less explicit information in the others the improvement is described as very great or spoken of as "recovery." Cases II, III, V and XV appear also to have been improved very considerably, and to these we may add our own and Morison's second case, making six in which the operation was of very definite value. In some of these, as in our own, and in several tuberculous cases, the results were, however, masked by other diseases. Lastly, there remain three cases, Nos. VI, VII, and XIV, and perhaps also Morison's first case, in which we have no clear evidence of any very material improvement. It is by no means easy in such a summary to assess fairly the amount of benefit in each case, but we can hardly doubt that in the great majority, if not in all, the surgeon and patient have been satisfied with the result. It is also to be borne in mind that in all these tentative operations the patients have been ill for a very long time, the disease has been far advanced, all other methods of treatment have been fully and fairly tried, and the disturbing question of how far improvement has been due to rest and nursing has been set aside by prolonged care before operation was even contemplated. In the future an early resort to operation before the heart has approached exhaustion may give much better results.

With regard to indications, Brauer and his school lay the greatest stress upon evidence of adhesions to the bony walls of the thorax and especially upon marked diastolic precordial bulging with systolic retraction. The last condition was not present in our own case, which was undertaken before any details of Brauer's work were published, and, of course, before any other cases except Beck's had been reported, and we were, or at any rate I was, unaware of the stress to be laid upon its presence. In our cases it certainly did not appear to myself that the heart was in any way rigidly bound to the chest wall, and I am quite prepared to believe that such benefit as resulted was at least in part due to the mere provision of space for the heart's action. It will, however, perhaps not be expected that a surgeon should express any judgement upon the interesting question raised by Morison beyond saying that the two indications at present recognizable are the release of the heart from a too confined area and its release from adhesions to the chest wall.

On the other hand, it is clear, as emphasized by Umber and others, that it is useless to operate so late that myocardiac degeneration has left the heart incapable of recovery, and the best test is probably the fact that temporary recovery ensues with rest and treatment.

In conclusion, I may now refer to certain points in connexion with the operation itself.

The question of anaesthesia presents special difficulties, and has given much anxiety. Beck and König used morphine, chloroform, and ether; Wenckebach and Stabb chloroform; Küttner and Danielsen ether; Petersen and Simon attempted to operate under local anaesthesia, but had to give chloroform and subsequently ether. In our case Thompson employed a mixture of ether and chloroform, and we had a few anxious minutes before the operation was commenced, but no subsequent trouble. The principal difficulty lies in the fact that there is danger on the one hand of syncope under chloroform and on the other of irritation of a congested, inflamed, or tuberculous lung by ether. Personally, we should prefer to mix these anaesthetics, using the open method, relying principally upon chloroform and adding more ether if any sign of cardiac failure demands it. It is also noteworthy that as soon as the chest wall has been opened the heart at once gains power and the pulse improves, so that less ether will be required in the later stages.

The incision has always taken the form of a curve, the soft parts being turned back as a flap. Most operators have turned this flap outwards; Stabb reflected it upwards. In our case it was reflected inwards, as excision of the sternum was our main objective; but in future I should turn it outwards, both because I should not remove much, if any, sternum, and because the flap with its base to the middle line is less well supplied with blood. In our case the congested veins and the section of the terminal branches of the intercostal arteries caused the flap to become very oedematous, with a little sloughing near the drainage aperture, and there can be no doubt that any trace of sepsis would under such conditions have led to disaster.

The extent of bone and cartilage removed has been sufficiently indicated in the table given above. In Brauer's first case this was limited to the ribs; in Simon's cases a part of the sternum was also cut away, and this we carried further, removing the whole of the centre of that bone. In all the later cases ribs and cartilages only have been excised, and this will probably be the course adopted in future. I did not find the firm retrosternal adhesions which I had been led to expect, and had I known more precisely the conditions to be met with I should have spared myself some anxiety by leaving the sternum intact. Possibly, however, in some cases in which after removal of the ribs dense retrosternal adhesions are discovered, it may be well to cut away the left border of the bone. With regard to the amount of

* Venus, in a critical abstract (*Centralblatt für die Grenzgebiete der Medizin und Chirurgie*, vol. xi, 1908, p. 539) enumerates also three cases referred to by Blauel, and he is followed by Poynton and Trotter (*Lancet*, June 19th, 1909), but these appear to be Brauer's cases.

rib to be removed further experience may guide us; but it would seem reasonable to make the thoracic window of good size, and at least to remove any bone upon which the heart can have a direct impact.

Much stress is laid by several German writers upon the importance of removing all periosteum and perichondrium to prevent bone regeneration, while others emphasize the danger of so doing, and even claim that the posterior periosteum cannot be removed without injury to the pleura, which might, under the conditions, prove a most grave complication (König). Of actual facts to support either contention there are few, if any; but the dread of bone regeneration appears to be at least greatly exaggerated and based on the results of thoracoplasty for empyema, in which the conditions are very different. It would seem to the writer probable that, even if regeneration did tend to occur over the bulging heart, the latter would readily provide space for its action in the thin layers of bone which would first be formed, and that, as the cartilages would in no case regenerate, there would always be an ample gap in the chest wall; while the ends of the ribs, having no attachments, would accommodate themselves to the requirements of the heart. In the case of Umber and König, in which periosteum was not removed, the patient died two and a half years later, and at the *post-mortem* examination it was found that there had been no regeneration except for a few bony spicules. On these grounds I should in future be inclined to adopt König's suggestion—namely, to excise the superficial periosteum, leaving that on the deeper side of the ribs, unless it could be taken away with ease and rapidity; in a case such as Meyer-Westfeld's, in which thick and dense fibrous tissue is found below the chest wall, it is, however, both easy and advisable to remove the posterior periosteum (Umber).

Lastly, it is of essential importance to arrest all haemorrhage before closing the wound, and it is probably wise to provide a drain for a few days, as the cut surfaces are extensive, and the movements of the heart cause a good deal of mechanical irritation in the flap, and will tend to aggravate the flow of serum.

REFERENCE.
[1] *Lancet*, July 14th, 1908, p. 7.

# THE MECHANISM OF CARDIAC PAIN.

BY OTTO MAY, M.A., M.B.CANTAB., M.R.C.P.LOND.,
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AN investigation of the pain and other sensory disturbances occurring in a series of 50 cases of heart disease has elicited certain facts which seem to have a bearing on the mechanism of production of cardiac pain. The details of these cases are published elsewhere;[1] the purpose of the present article is to emphasize these facts, and to touch upon a few theoretical considerations arising therefrom.

The whole heart, and the aorta as far as the origin of the innominate artery, are developmentally "mesial" organs. Further, the auricles develop from the more caudal part of the primitive heart tube, the ventricles and aorta from the more cephalic part.

From these facts it could be confidently predicted (*a*) that the cardiac nerves are derived from both sides of the nervous axis; and (*b*) that the auricles are innervated from segments of the central nervous system caudal (or posterior) to those innervating the ventricles and aorta. The former statement is easily verified by the known facts of anatomy, the cardiac nerves being derived from both vago-spinal accessories, and both right and left sympathetics.

Little seems to be really known, however, as to the exact details of distribution—for example, whether the nerves from the right side supply the right chambers, and vice versa. G. A. Gibson[2] states that "the left ventricle and its attachments are connected mainly with the left coronary and left deep cardiac plexuses, which, along with the entire superficial cardiac plexus, are in relation with the left nerve centres." He appears to believe, also, that the right chambers are supplied from the right nerves, and, in confirmation, instances a case of failure of the right heart in which "anginous" symptoms began on that side. On *a priori* grounds, such a scheme of innervation seems highly improbable, as the septation of the heart is a secondary process, having no relation whatever to the bilaterality of the organism.

Statement (*b*) receives neither verification nor denial from the anatomical textbooks, which contain no reference to the detailed innervation of the separate chambers in terms of the segments of the nervous axis. According to Head,[3] the afferent paths from the auricles are connected with the fifth to eighth thoracic segments, those from the ventricles with the first to fifth thoracic, and those from the aortic arch with the third and fourth cervical, and first to fourth thoracic. These statements accord with (*b*), but they rest on theoretical grounds rather than on anatomical observation. Neither do they represent the whole afferent innervation, as they do not include those of the "bulbar autonomic system" (vago-spinal accessories). There is abundant physiological evidence that these nerves carry afferent cardiac fibres—for example, the "depressor" nerve of the rabbit, and the reflex effects of stimulating the central cut end of the cardiac branches of the vagus in mammals generally. Recently Einthoven[4] has shown that the peripheral part of the cut vagus exhibits "negative variations" corresponding in frequency with the rate of the heart beat—strong presumptive evidence that the vagus transmits afferent cardiac impulses even during the normal heart rhythm. It is probable that the referred tenderness in the sterno-mastoid, to which Mackenzie[5] has drawn special attention as a sign often elicitable in patients with failing compensation, is a clinical manifestation of these afferent cardiac impulses in the vago spinal accessories. This tenderness was present in 13 out of the 50 cases examined.

Pain was, or had been, present in 35 cases—that is, 70 per cent. In some it was slight, in others it formed the most striking feature in the clinical picture, being of a severity sufficient to dominate the patient's mode of life. Its distribution varied in different cases, the important point in this connexion being the absence of any definite relation between the site of the pain and the clinical diagnosis of the valvular lesion present. This statement is contrary to the usually expressed views. Thus Head[3] describes cardiac pain as of two kinds, (1) local, (2) referred, according to the laws formulated by him and others for the reference of pain in visceral disease. He regards the pain of aortic disease as due to the left ventricle, and as situated over the upper part of the chest, the scapula, and the inner side of the left arm—that is, the territory of the upper thoracic nerves. Similarly, he explains the pain of mitral disease as auricular in origin, and referred to the territory of the middle four thoracic nerves. As regards the mechanism of production, he looks upon the causal factor as being the undue distension of the chamber in question during its diastolic pause. It is on these assumptions, in fact, that he has worked out the innervation of the different chambers as described above.

The discrepancy between Head's account and the findings in the present series of cases can best be exemplified by brief accounts of three cases of undoubted mitral disease in which the distribution of pain was of the type described by him as typically aortic. It is interesting to note that Mackenzie[6] has described this distribution of pain as occurring in certain cases of mitral stenosis, especially in female patients. He regards it as a sign of exhausted power of contractility of the cardiac muscle.

### CASE I.

M. R., female, aged 35. Rheumatic fever one year ago. Since then she has never felt strong, and, at fairly frequent intervals, has had very severe attacks of pain in the front of the chest and radiating down the inner side of the left arm. The pain has been so bad as to cause the patient to pace the room, nursing the arm with the other hand. She noticed, moreover, that these attacks left the arm with a feeling of soreness for some hours afterwards. She was sent up to hospital by her doctor with the tentative diagnosis of angina pectoris. (She never exhibited the immobility or "the fear of impending death" characteristic of the severe form of angina.)

*Physical Signs.*—Apex beat in fifth left space, just outside the nipple line; impulse fairly well localized, but not very strong. At the apex there is a double murmur, presystolic and systolic, and the second sound can be heard. At the base the second sound is rather accentuated to the left of the sternum; both sounds are weak to the right. The pulse is rather irregular and the liver cannot be felt.

CASE II.

H. D., female, aged 45. Two previous attacks of rheumatic fever. Admitted with all the signs of failing compensation—general oedema, ascites, orthopnoea, and cyanosis. She complained of sharp pain in the chest and left upper arm as far as the elbow.

*Physical Signs in Heart.*—H.A.B. fifth space, 5½ in. from the middle line. Impulse irregular and not very forcible. At apex both sounds heard, and, in addition, there is a loud, rough, systolic murmur conducted outwards to the axilla. At the base both sounds are heard and the second sound is accentuated at the pulmonary cartilage. There is no murmur at the base.

CASE III.

M. G., female. Aged 31. Four attacks of rheumatic fever. Complains of shortness of breath, palpitation, and pain. The latter is in various parts of the chest, but especially in the precordium, and often radiates down the left arm.

*Physical Signs.*—H.A.B. in fifth space, 3½ in. from the middle line. The impulse is slapping in character, and preceded by a well-marked presystolic thrill. At the apex a rough presystolic murmur is heard, followed by a short first sound. The second sound at the pulmonary cartilage is accentuated. The pulse is irregular, and the liver cannot be felt.

The occurrence of such cases is sufficient to cast doubt on the theory of the "mechanical" origin of cardiac pain. And a more detailed consideration of the conditions confirms the necessity of abandoning this theory. Thus, two possible methods of mechanical stimulation of the afferent nerve endings in the heart wall suggest themselves (*a*) by increased strain as a result of undue distension of the chamber; (*b*) by increased pressure as a result of excessive strength of contraction of the cardiac wall. As already mentioned, the former of these alternatives is apparently the one adopted by Head.[3]

If it were true, then the ideal condition for the production of heart pain would be the overfilling of a cardiac chamber during diastole. In other words, pain should be a prominent symptom in all cases of heart disease, with marked dilatation and insufficient emptying of the chambers. Now this condition is met with to an extreme degree in the common case of "double mitral disease" with failure of compensation; yet a patient afflicted in this manner not uncommonly exhibits all the physical signs of complete failure of compensation—cyanosis, orthopnoea, general anasarca—without at any time suffering any pain referable to the heart. In the series of 50 cases two well-marked examples of this condition occurred, both in young subjects, and both going to a fatal issue; yet the patients never manifested either pain or tenderness. Such cases would be quite inexplicable were the mechanical effects of cardiac dilatation the chief factor in the production of pain. The converse argument tells in the same direction—many of the severest cases of heart pain occur in patients in whom no dilatation can be observed either clinically or at autopsy.

The second alternative—increased pressure on the nerve endings as a result of excessive force of contraction—hardly calls for consideration. The condition of great muscular hypertrophy without the occurrence of any pain is so commonly met with, in athletes, in renal disease, etc., that this possibility could never be seriously urged as a fitting explanation.

It seems, then, that no mechanical theory is capable of offering a satisfactory explanation of the origin of the "painful" stimulus. But there is one factor which may be presumed to be present to some degree in all cases of heart disease, namely, some *chemical* change in the myocardium. The suggestion presents itself that the stimulus to the nerve endings may be a chemical one, some product of the disordered metabolism of the heart muscle. On consideration a number of facts can be adduced which fit in well with this suggestion. Thus, there is a general consensus of opinion that those heart affections are most characterized by pain in which, at autopsy, most evidence of myocardial degeneration is present. Again, the paroxysmal nature of the pain in many cases, without any corresponding change in the physical signs in the heart, is easier to explain on the assumption of a chemical stimulus than of a mechanical one.

No striking originality is claimed for this view; in fact, it is in some degree foreshadowed by Mackenzie's opinion, quoted above, that the pain often results from exhausted contractility, for there can be practically no doubt that the phenomena of muscular exhaustion must rest on a chemical basis. In the present state of biochemical knowledge it is impossible to suggest what actual compound or compounds could be invoked as an adequate stimulus. But it is quite within the bounds of probability that competent chemical investigation of the myocardium of patients whose clinical history was known might throw considerable light on this question.

Further, this conception of the mechanism of cardiac pain tends to bring it into line with other painful conditions—notably, "cramp" of voluntary muscles and the "lightning pains" of tabes dorsalis. Mott and others believe that the latter are caused by gradual liberation of chemical irritants from the degenerating posterior root neurons. This view has displaced the earlier one—that the pain was due to pressure from sclerosis of the roots. It affords a ready explanation of the clinical observation that the pains often cease when ataxia develops, and that in those patients who never become ataxic pain continues to be a prominent feature throughout the course of the disease.

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## INFECTIVE ENDOCARDITIS TREATED WITH ANTIDIPHTHERIAL SERUM.

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IN the absence of bacteriological proof, some authorities state[1] that the cure of infective endocarditis cannot be accepted as such.

Time and the many exigencies of general practice make it almost impossible for the practitioner to make blood cultures, take opsonic controls, and indulge in the ultra-refinements of the bacteriological laboratory. The following notes are based purely on clinical observation, and their publication would not have been sought had not the case in question been seen by one whose authority goes without saying.

On August 14th, 1909, I was called to see a man, J. T., aged 30, and was told that he had just had "a severe shivering attack."

*Previous History.*

The patient, as far as he could remember, had always enjoyed good health, the only trouble being a "running ear," which sometimes discharged a little, but for long periods was quiescent: the condition of the ear he dated back to childhood. His habits had always been regular, and he had always been most abstemious. No history of rheumatism or injury could be elicited.

*State on Examination.*

I found the patient sweating profusely, the pulse was forcible, and the respirations hurried; he was pale, complained of headache, and had just had an attack of vomiting; the tongue was furred, dry, and tremulous; the temperature was 104° F. For some few days he had not felt quite as well as usual, but did not attach much importance to this condition. The provisional diagnosis made was some atypical form of typhoid.

*Progress of the Case.*

The pyrexial curve and absence of other typhoid symptoms dispelled the idea of typhoid fever, and I then regarded the case as one of septic infection, and by a process of exclusion infective endocarditis was surmised.

The patient, in spite of ordinary treatment, continued to have severe rigors, averaging three attacks in the twenty-four hours, with an intermittent pyrexia ranging between 97° and 104° to 105°, accompanied by delirium and followed by profuse sweats.

Examination of the heart gave at first indefinite results, but a systolic murmur could be heard over the aortic area on the third day; and on the fourteenth day a well-marked mitral systolic murmur could be heard carried up into the axilla.

The spleen was enlarged and tender. The urine contained albumen, but no casts. Examination of the left ear revealed a perforation of the tympanic membrane, with a bead of pus in the middle ear.

On the eighth day of the disease the condition of the patient was so grave that I deemed it necessary to call in further advice, and Professor Dixon Mann saw the patient with me. The diagnosis was confirmed, but the prognosis was hopeless.

*Treatment.*

At first the patient was put upon large doses of quinine and arsenic, but they had practically no influence upon the pyrexia; and, having to deal with a case of a pyaemic nature, whose blood stream was no doubt charged with infective bacteria, I decided to treat the patient as much as possible on germicidal lines.

Regarding the septic ear as a possible channel[2] for the infecting micro-organism, this was treated with instillations of hydrogen peroxide, followed by irrigations of a mild antiseptic lotion. The alimentary canal and the renal secretion were likewise treated antiseptically; for the former salol and benzonaphthol were administered three-hourly, and for the latter 15 grains of urotropine was given night and morning. To maintain the patient's strength I allowed as much as he could take of an easily assimilative diet. Stimulants were not resorted to, since the patient had never taken any.

In spite of the above treatment, the rigors still persisted, so that my mind turned to vaccines and antitoxins. Two cases were recently brought to my notice where, even after blood cultures were made, and in the one case a suitable emulsion of killed micro-organisms made, and in the other an appropriate serum prepared, yet the result was disappointing.

Although antidiphtherial serum so far is regarded as a specific in neutralizing the toxins of the Klebs-Loeffler bacillus, yet cases are not wanting in which it has been of service in other directions, consequently I decided to inject an initial dose of antidiphtherial serum (Parke, Davis and Co.) of 2,000 units into the abdominal parietes. To my surprise and to the gratification of the patient, only one rigor took place during the next twenty-four hours, and for the following five days the morning temperature was slightly subnormal and the evening temperature just above the normal. On the evening of the fifth day after the first injection I was hurriedly summoned and found the patient in a severe rigor, with a temperature of 104.2°; the rigors continued for the following three days, but in a milder form than formerly, and were not as frequent.

The patient derived so much benefit from the first injection that he begged for another, and I therefore gave him a second injection of 4,000 units in the early morning; the same evening he had a slight rigor, and on the following day the temperature dropped to 101°; after this the temperature kept more or less to the normal, and the patient made an uninterrupted recovery. The patient remained in bed six weeks; three weeks he recruited in a convalescent home, and on examination on November 28th the heart sounds were quite clear, his anaemia much less marked, and his weight had increased 8½ lb.

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[1] *Practitioner*, May, 1908. [2] Clifford Allbutt, vol. i.

## HENOCH'S PURPURA OR ANGIO-NEUROTIC OEDEMA?

BY H. CECIL BARLOW, M.B.LOND., L.R.C.P., M.R.C.S.
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**IN connexion with Dr. Leigh Day's case of Henoch's purpura, the following cases, which occurred within a few weeks of one another, may be of interest:**

CASE I.

C. M., male, aged 12. First seen on February 9th, 1906; had complained for four days of severe abdominal pain, accompanied by diarrhoea. "The motions looked like blood." On both legs and the backs of both hands there had been white swellings, "the size of a walnut," which developed rapidly, lasted a few hours, and then disappeared.

The boy was pale but not anaemic; the temperature was 100°, the pulse 80 and irregular. The abdomen was slightly retracted, nowhere tender, and nothing abnormal was felt. There were no spots nor any trace of the swellings described. There were no objective signs in the chest.

On February 10th the temperature was 99.6°, the pulse 74, and he looked very ill, with sunken eyes, and much abdominal pain. During the night he had passed six loose motions, containing much bright red blood but no mucus or pus. Nothing abnormal was felt on rectal examination. Several purpuric spots were observed around the elbows.

On February 11th he appeared better, the temperature was normal, the pulse 78, and he had had only one motion, normal in appearance, in the last twenty-four hours, but the urine was scanty and contained a large amount of blood. The skin of the buttocks and sacrum was covered with large purpuric spots, some the size of a shilling.

On February 12th the general condition was better and the pain was neither so frequent nor so severe. He had slight diarrhoea, but the motions contained only a small quantity of blood. The urine had increased and the quantity of blood had diminished.

Up to February 19th his condition remained much the same, when there appeared on the back of the left hand a patch of solid oedema the size of a bantam's egg. The movements of all the joints in the hand were unattended by pain. The patch lasted twelve hours, and then subsided rapidly, leaving no trace.

From February 19th to 28th his general condition steadily improved, pain ceased, and the blood disappeared from motions and urine.

On February 25th he had a fresh crop of purpuric spots on the buttocks which lasted two days only. By March 1st he was quite convalescent.

CASE II.

G. L., male, aged 4½. Was seen on March 12th, 1906. For a week he had complained of severe abdominal pain, coming on specially at night; otherwise he did not appear to be ill. The boy was well nourished and not anaemic; he did not complain of pain at the time of examination, and the temperature was normal. Careful examination of abdomen revealed nothing abnormal. There were no objective signs of disease.

For the next few days the attacks of pain were frequent and severe, but I failed to detect anything to throw light on the condition.

On March 20th I examined him during an attack of pain. The pulse was 100, regularly intermittent, and there was most noticeable rigidity and retraction of the abdominal muscles, but nowhere did pressure reveal any tender spot. Around the wrists and on the extensor aspects of the legs were a large number of circular spots, resembling urticaria, but the hyperaemic border was a darker and more dusky red than in ordinary urticaria. There was no irritation. These spots lasted four days, and left a stain like a bruise.

On March 21st his condition was about the same. On the backs of both hands were patches of solid oedema of an area of about 2 sq. in. There was no pain on movement of any of the joints of the hands. These swellings lasted forty-eight hours and then rapidly disappeared, leaving no stain. He complained of pain in the dorso-lumbar region.

On March 22nd a patch of solid oedema appeared on the back, over the spine of the last dorsal vertebra. It lasted less than twenty-four hours, leaving a well-marked bruise, which covered an area of 4 sq. in.

On March 23rd the eyelids were oedematous and the site of urticarial spots becoming purpuric. The child was very ill; the pulse was 120 and intermittent, the temperature normal; he was taking very little nourishment.

On March 24th he vomited during an attack of pain; urticarial wheals appeared on the cheeks, replaced two days later by purpuric spots.

On March 25th the child was exceedingly ill and vomited frequently; on the next day he was much collapsed, the face livid, the eyes sunken, and the pulse 120, small and very soft. He had vomited incessantly all night, but had had no attacks of pain.

On March 27th the condition was greatly improved; he had only one attack of pain, and there had been no vomiting. On March 29th large purpuric spots appeared on the elbow and backs of forearms; and from March 30th to April 3rd several fresh crops of spots appeared. On the arms many of the spots coalesced, causing large areas of discoloration. On April 3rd a few spots were noticed on the hard palate. He complained of pains in both knees; there was solid oedema above the left patella, and the knee-joint was hot, swollen, tender, and contained excess of fluid. The pulse for the last few days had been about 70.

From April 4th to 30th he improved steadily, although he had several fresh crops of spots and patches of oedema. The attacks of pain occurred at longer intervals, and were less severe. By the middle of May he was convalescent.

**Perhaps the most interesting feature common to both cases was the occurrence of solid oedema which appeared and disappeared very rapidly. This is not a condition generally met with in Henoch's purpura, but angio-neurotic oedema is characterized by severe gastro-intestinal crises, and Osler has pointed out that Henoch's purpura has an interesting connexion with angio-neurotic oedema. In neither case was the spleen felt. The temperature in the first case was slightly raised at the onset, but in the second it was normal throughout; in both at times the pulse was unduly slow, and for some time in the younger boy it was regularly intermittent. There was no involvement of the joints in the first case, and a very slight and transient swelling of one joint in the second. The changes in the younger boy's general condition were very rapid. One morning he would appear to be in extremis, and the next his illness seemed to be slight. Conty regards the disease as of nervous origin, affecting the vasomotor nerves, and certainly in these two cases the symptoms might be explained by the presence of a toxin acting mainly on the sympathetic nervous system.**

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THE Metropolitan Asylums Board has arranged for further lectures and demonstrations in hospital administration for the benefit of candidates for the diploma in Public Health. There will be two simultaneous courses covering the same ground, the one being conducted at the North-Western Hospital by Dr. J. MacCombie, and the other by Dr. F. M. Turner at the South-Eastern Hospital. Each course lasts three months, that at the North-Western Hospital commencing at 11 a.m. on Monday, January 10th, and continuing on each consecutive Monday thereafter. The South-Eastern Hospital course begins at 2 p.m. on Wednesday, January 12th, continuing at the same hour on the following Wednesdays. The fee is £3 3s.

# FATAL APLASTIC ANAEMIA.

BY

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*With Remarks by*

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**As aplastic anaemia is not very commonly recognized and may easily be mistaken for lymphatic leukaemia in an aleukaemic phase, the following case—although not confirmed by a necropsy—is worth recording. It is noteworthy that the grave anaemia followed an infection of the gums with the spirilla and fusiform bacilli of Vincent's angina.**

Male, aged 30, married, a club patient, always healthy, had never had syphilis, and except for severe influenza when 18 years of age had not had any serious illness. At Christmas, 1908, he had a lump in the roof of his mouth, and a dentist then extracted 6 teeth; he visited the dentist regularly every fortnight, and had 15 more teeth out. Since the date of the first extraction he had an offensive discharge from the gums, tasting and smelling like bad fish. In June, 1909, I saw him for the first time professionally, and probed the gums every few days and gave him a carbolic mouth wash, with great improvement in the local condition. In the second week in September he went to Folkestone, but while there he rapidly became worse, losing his appetite and suffering from sleeplessness and palpitation. On his return he was intensely anaemic. On September 26th the Clinical Research Association reported that pus from the gums contained the spirilla and fusiform bacilli of Vincent's angina, and also numerous very minute Gram-negative bacilli which could not be identified, and a few Gram-positive cocci, possibly due to contamination. His blood was examined by the same association, with the following result:

| | |
|---|---|
| Red blood corpuscles ... ... | 840,000 per c.mm. |
| Haemoglobin ... ... ... | 17 per cent. |
| Colour index ... ... ... | 1 |
| White blood corpuscles ... ... | 12,000 per c.mm. |
| Differential count: | |
| Polymorphonuclears ... ... | 12 per cent., or 1,414 per c.mm. |
| Small lymphocytes ... ... | 55 per cent., or 6,624 per c.mm. |
| Large lymphocytes ... ... | 32 per cent., or 3,840 per c.mm. |
| Eosinophiles ... ... ... | 0 |
| Mast cells... ... ... ... | 0 |
| Myelocytes ... ... ... | 0.8, or 96 per c.mm. |

Three nucleated red blood corpuscles, all normoblasts, were seen in a count of 250 white cells. The red blood corpuscles were somewhat irregular in size.

At this time the spleen was not palpable, but the liver was somewhat enlarged. Except for slightly enlarged glands in the neck, there were no palpably enlarged glands. Some purpuric spots appeared on the back. On the blood count a diagnosis of aplastic anaemia was made, and he was treated with injections of arsenic and iron. He rapidly got worse, and died on November 2nd. A necropsy could not be obtained. On October 1st Dr. Rolleston kindly came down and helped me to diagnose the case.

REMARKS BY DR. ROLLESTON.

Aplastic anaemia, though described by Ehrlich[1] in 1888, has not attracted much attention. Lavenson[2] in 1906 collected 11 cases, and Cabot[3] in 1908 tabulated 24 cases, and refers to 11 other cases which he does not regard as sufficiently complete; this case must also be considered incomplete inasmuch as, in the absence of a necropsy, the aplastic condition of the bone-marrow could not be proved.

Cabot considers aplastic anaemia to be closely allied to pernicious or Addisonian anaemia, and states that the distinction between the aplastic and the metaplastic (or pernicious) types of anaemia is one of degree only. French,[4] on the other hand, regards aplastic anaemia as a distinct form of grave anaemia; and Lazarus[5] considers it as a form of simple anaemia. The essential point about aplastic anaemia is the absence of any compensatory reaction of the bone-marrow (aplasia), and in this among other respects it differs from pernicious anaemia. As a result there is a diminution not only of the red blood corpuscles but of the granular leucocytes (the polymorphonuclears, eosinophiles, mast cells) manufactured by the red bone-marrow. There is, therefore, a relative increase of the lymphocytes; in 12 of Cabot's cases the lymphocyte count averaged 72 per cent. In a blood film the blood picture of lymphocytic leukaemia is thus imitated. It may also be pointed out that in this case in an early stage the condition of the gums would have been compatible with a diagnosis of acute lymphocytic leukaemia. As further characteristics of aplastic anaemia Cabot gives its incidence in young persons, 75 per cent. of his cases being under 35 years of age; greater incidence in women than in men; its rapid course without any remissions; the greater liability to haemorrhages; a low colour index, the average of 19 cases being 0.8; and the absence of nucleated red blood corpuscles.

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# NOTE ON THE PRESENCE OF "BILHARZIA HAEMATOBIA" IN EGYPTIAN MUMMIES OF THE TWENTIETH DYNASTY

[1250–1000 B.C.].

BY MARC ARMAND RUFFER, M.D.,

PRESIDENT OF THE SANITARY, MARITIME, AND QUARANTINE COUNCIL OF EGYPT, ALEXANDRIA.

IN a previous note published in this JOURNAL I described a process by which mummified tissues could be prepared for histological examination. I ventured to predict that it was highly probable that, by this method, one would be able to recognize pathological changes, such as cirrhosis, cancer, etc.

Thanks to the kindness of Professor Elliot Smith, Professor Flinders Petrie, and Professor Keatinge, I have obtained several organs from mummies of the eighteenth to the twentieth dynasty, and I may state at once that such diseases as atheroma, pneumonia, renal abscesses, and cirrhosis of the liver are plainly recognizable. In the renal abscesses and in other lesions I have stained micro-organisms with methylene blue, fuchsin, haematoxylin, and even by Gram's method.

At the present time there is perhaps no disease more important to Egypt than that caused by the *Bilharzia haematobia*. So far no evidence has been produced to show how long it has existed in this country, although medical papyri contain prescriptions against one of its most prominent symptoms—namely, haematuria. The lesions of this disease are best seen in the bladder and rectum, but unfortunately these are just the two mummified organs which I have not been able to obtain so far. Nevertheless, in the kidneys of two mummies of the twentieth dynasty I have demonstrated in microscopic sections a large number of calcified eggs of *Bilharzia haematobia*, situated, for the most part, among the straight tubules. Although calcified, these eggs are easily recognizable and cannot be mistaken for anything else. I may add that I showed some of my sections to Professors Looss and Ferguson, whose paramount authority on such a subject cannot be disputed, and both confirmed my diagnosis.

I have examined microscopically the kidneys of six mummies. The kidneys of two were apparently healthy; the left kidney of another was congenitally atrophied; those of the fourth contained multiple abscesses with well-staining bacteria and other lesions, which so far I have not diagnosed; those of the fifth and sixth showed bilharzia eggs, and the latter had other lesions as well, which, owing to the shrunken state of the organ, I am unable to define accurately as yet.

Renal disease, therefore, was not infrequent among Egyptians living over three thousand years ago.

THE Henry Saxon Snell prize of the Royal Sanitary Institute for 1909 has been awarded to Mr. Alfred E. Wheeler, of West Ealing, and special prizes have been awarded to Mr. J. Roger Preston, Stourbridge, and Mr. E. Thomas Swinson, Feltham. The subject was the principles of heating and ventilating public buildings.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### FOREIGN BODY IN THE TONGUE.

ON September 21st, 1909, a gardener aged 35 consulted me about a painful spot on his tongue which had been troubling him for over seven months. It was on the right side, below the margin of the tongue, a small inflamed patch crowned by a papilla which suggested the end of a sinus. No opening was visible, and an ordinary probe failed to find one, but careful search with a fine lacrymal probe revealed a minute opening leading into a sinus which could be traversed for about 1½ in. inwards and backwards, where the probe eventually impinged upon something hard. On examining the tongue with the finger and thumb a hard lump of considerable size could be felt embedded in the substance of the muscle about the middle of the organ, and slightly to the left of the septum, pressure on the tongue causing a purulent fluid to exude.

Early in the preceding February the patient had fallen down some steps into the coal cellar, breaking off portions of the right upper second and left lower second molars, and lacerating the *left* side of his tongue. The wound had healed rapidly and given little trouble, but later a soreness developed on the *right* side of the tongue, remaining until the time of inspection. We surmised, therefore, that the foreign body was either a fragment of tooth or of coal. The sinus was gradually dilated until a sinus forceps could be introduced, but the instrument was too tightly grasped by the muscles for any attempt at removal to be made without great pain, and further treatment was postponed for a few days.

Within a week the patient returned with the information that the foreign body had come away of itself, and appeared to be a portion of tooth. I again introduced a probe, and found a hard substance of considerable bulk still remaining. I advised removal under a general anaesthetic. On October 4th Mr. Harmar administered a mixture of chloroform and ether. Employing a mouth gag, and drawing forward the tongue with a Liston's forceps, I dilated the sinus and enlarged the opening by an antero-posterior incision on the horizontal plane, dislodging the foreign body with the finger, and eventually extracting it with dressing forceps. It proved to be a fragment of the end of the vulcanite mouthpiece of a pipe which the man had been smoking at the time of the accident. Further investigation revealed the presence of another body which was similarly removed. It was almost identical with the former fragment, the end of the mouthpiece having not only broken off, but split longitudinally along the bore. The two pieces fitted together perfectly, forming in conjunction a body ¾ in. long by ½ in. wide and ⅛ in. thick, the total weight being 15 grains. The wound was closed with a single silk suture which was removed five days later, the recovery being uneventful.

It is remarkable that such a large sharp-edged object should have remained undiscovered so long in this situation.

Edgbaston, Birmingham. WILLIAM MURRAY, M.A., M.D.

### EFFLORESCENCE OF UREA IN URAEMIA.

A MAN aged 56 consulted me for shortness of breath. There was nothing in the condition of heart or lungs to account for the dyspnoea. On examining his urine I found albumen. Two years later he developed cerebral haemorrhage, from which he made a slow and tedious convalescence. He lived a demented life for another year, and then died of the original kidney trouble. After death his wife called my attention to his skin. The face was covered with a coarse white powder, very thick over the forehead and nose. On looking at his chest, the parts about both clavicles were profusely covered. I collected some of this coarse gritty débris and heated it dry in a test tube. It gave off ammonia. The residue was treated with a trace of cupric sulphate and excess of sodium hydrate. It gave a rose colour. I may mention that the patient was under no treatment whatever during the later months of his life, and that his skin only exercised its excretory function with regard to urea *in articulo mortis*.

Exeter. J. A. W. PEREIRA, M.D.

### MODIFICATION OF WHITEHEAD'S OPERATION FOR HAEMORRHOIDS.

IN the JOURNAL of October 30th, 1909, Mr. Stanmore Bishop very clearly describes the construction and cause of haemorrhoids, and rightly advocates their thorough and complete extirpation, which is impossible unless the operator removes the whole of the plexus of veins formed by the inferior haemorrhoidal.

On looking at the succeeding article, written by Mr. H. Graeme Anderson, it is shown that at St. Mark's Hospital in only one-third of the cases is such a radical operation performed.

The reasons why many surgeons avoid a radical operation are: Fear of haemorrhage and shock, failure of the wound to unite by primary union, sepsis, stricture of the rectum, loss of anal sensation, and length of convalescence.

At the annual meeting of the British Medical Association at Exeter, 1907,[1] Mr. Heygate Vernon demonstrated a simple method by which these possible dangers might be avoided. My own personal experience of this operation has convinced me that it is a good one. The haemorrhage is trifling; often the wound unites by primary union, enabling the patient to be about again in seven or ten days; there is no tendency to stricture, nor any loss of anal sensation or control.

By means of this operation one can remove just as much skin or mucous membrane as is desired, so as not to put undue traction on the uniting edges, and the whole plexus of veins can be dissected off without any haemorrhage, leaving the sphincter muscle uninjured and quite clean, so rendering a radical operation for haemorrhoids quite simple.

W. SILVERWOOD RICHARDSON, F.R.C.S.Edin.,
Assistant Surgeon to the Royal Boscombe and West Hants Hospital.

### THE POSITION OF THE PATIENT AFTER OPERATIONS ON THE ABDOMEN.

CHANGES do not always mean progress and sudden changes are even bewildering. Of late "Fowler's position" has been much to the fore in current medical literature. I had the pleasure last month of listening to a lecture before a medical society in which it was highly praised. Not so long ago the craze was all for the "posture of Clark," the peritoneum was to do its own drainage, in the neighbourhood of the midriff was the all-important absorbing area, and the foot of the bed was to be raised.

It would be grievous to add to the giddy sensation which a rapid mental review of the various positions advocated during the last few years produces in the mind which is not special, but there is a further manœuvre which may be deemed worthy of consideration by abdominal surgeons.

From a general practitioner's point of view an operation is successful which is not too closely followed by death, and which leaves no legacy of evil after-effects. The owner of the scar of an old abdominal incision, who complains interminably of pains and aches, is the bane of the lives of some of us. Our burden would be lightened if the formation of bands and adhesions could be prevented. Again, the impression on the mind of a patient who finds himself the subject of some curious, post-operative, acrobatic procedure, is not to be neglected. Yet again, a gentle, rhythmical motion often has a soothing action on the human economy. Perhaps dim, unconscious memories of an arboreous ancestry are responsible alike for the movements of the cradle and the fondness of old people for rocking chairs.

I should wish, therefore, to call the attention of coeliotomists to the "rocking movement" as a post-operative therapeutic measure. Among its advantages are: (1) The hustling of fluids which may be lurking in out-of-the-way holes and corners; (2) a discouragement of palsy of the bowel; (3) the hindering of the formation of bands and adhesions; (4) a generally sedative effect. The cogitative may well add to these advantages. A rolling motion is preferable to a pitching, and excess must be guarded against.

Brierley Hill, Staffs. S. K. VINES.

[1] BRITISH MEDICAL JOURNAL, August 5th, 1907, p. 903.

# Reports

ON

# MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

## MANCHESTER ROYAL INFIRMARY.

### CASE OF CANCER OF THE PYLORUS ASSOCIATED WITH GENERAL SPLANCHNOPTOSIS: PARTIAL GASTRECTOMY.

(By JOHN MORLEY, M.B., Ch.B.Manch., late House-Surgeon.)

[Under the care of Professor G. A. WRIGHT.]

MRS. F., a widow aged 37, was admitted on October 23rd, 1908, and gave the following history: Her health had always been fairly good until about two years before admission, when she began to feel out of sorts, and to tire readily at her work. Her appetite failed, and after a few months she began to suffer from much flatulence after meals. At the end of a year vomiting set in; it was only occasional at first, but gradually became more frequent until she would vomit in from fifteen minutes to two hours after almost every meal. For the last month the vomiting had been less frequent, owing, she believed, to more careful dieting. The vomited material would sometimes taste sour, sometimes bitter. There was no history of haematemesis. The stools had been very black on one or two occasions. She had not been constipated during the illness.

Pain began about six months before admission. It was of a dull aching character, referred to the middle line 2 in. above the umbilicus, and passed through to the back. It was made worse by food—sometimes at once, sometimes after an interval—and it was relieved to some extent by vomiting and rest. Three months before admission she first noticed "something rolling about as though it was alive" in her abdomen, and could hear a splashing sound when she moved suddenly. She thought she was afflicted with tapeworms, as she had been four years before, but though she took many draughts to expel them, none appeared in the motions. On feeling her abdomen one day, about three months before admission, she noticed in the umbilical region a very movable hard lump, which had grown gradually larger since. All this time her health had been failing gradually, and she had lost weight considerably. Her previous health, except for an occasional "bilious headache," and the tapeworms referred to above, had been good, and there was no past history of chronic indigestion. She has had four children and one miscarriage. The last child is 10 years old. Her mother is now suffering from cancer of the rectum.

The patient was a woman of rather small build, emaciated, sallow, and anaemic. The lower thorax was narrow and the subcostal angle small. The abdominal wall was thin and unusually flaccid and atonic. The supra-umbilical region of the abdomen was somewhat sunken, the infra-umbilical more protuberant. About 2 in. above and to the right of the umbilicus was a distinctly visible mass, descending freely on inspiration to below the level of the umbilicus. There was slight visible peristalsis of the stomach at times. On palpation, the mass felt hard, round, and nodular, rather smaller than a hen's egg, and exceedingly mobile. It could be pushed upwards beneath the liver, downwards to below the umbilical plane, and towards the left to a point 1½ in. beyond the middle line. When it was thus pushed to the left she complained of a dragging pain in the right hypochondrium. Splashing could be obtained easily over a wide area extending down into the left iliac fossa. Percussion of the stomach after inflation with a Seidlitz powder showed that the fundus was some 2 in. only above the pubes, and that the lesser curvature was also abnormally low, reaching almost to the umbilical plane in the middle line. Peristaltic waves could now readily be seen rolling across the greatly dilated stomach.

The patient was given bismuth carbonate ʒj while standing in front of the radiographic screen, and it was seen that the liver was unusually low, its upper margin descending to the seventh rib in the nipple line. The bismuth, coming down the oesophagus, halted at the cardiac orifice, showing its level to be about the mid-epigastric plane, and then slipped straight down to the left iliac fossa, where it collected and outlined the fundus 2 in. above the pubes.

To test the secretory activity of the stomach an Ewald test breakfast, removed after one hour, was analysed, with the following result: No free hydrochloric acid; total acidity, 14°; lactic acid present; some blood and torulae were seen microscopically. The Oppler-Boas bacillus was not found.

Palpation and percussion showed the position of the solid viscera to be as follows: The upper border of the liver was at the seventh rib in the nipple line, and its lower border some 2 in. below the costal margin. The spleen could not be felt. Both kidneys were movable, especially the right, which could be manipulated down into the right iliac fossa. The upper pole of the left kidney was palpable. On deep bimanual palpation internally to the right kidney a smaller lump than the pyloric tumour could be felt about the level of the umbilicus. It was freely movable, about the size of a walnut, and had a firm elastic feel as of an enlarged gland in the omentum. Vaginal examination revealed no retroversion nor prolapse of the uterus.

Pyloric carcinoma was diagnosed, and it was decided to operate with a view to complete removal of the growth, if possible; on failing that, gastro-enterostomy.

*Operation.*

On November 4th, 1908, ether was administered by Dr. Bythell, and Professor Wright made a vertical incision 5 in. in length in the middle line between the ensiform

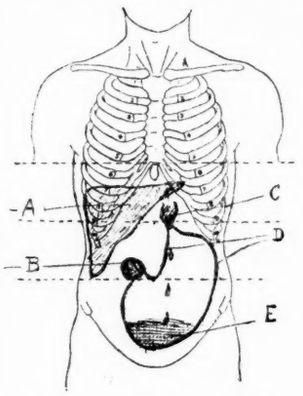


Fig. 1.—Condition before operation. A, Liver; B, pyloric tumour; C, bismuth at cardiac orifice; D, outline of inflated stomach; E, bismuth at fundus as seen in screen.

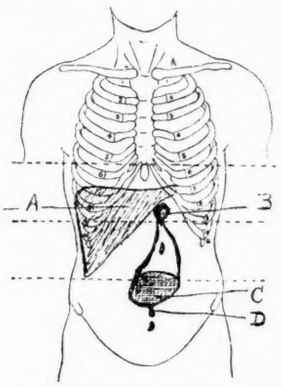


Fig. 2.—Condition after operation. A, Liver; B, cardiac orifice; C, bismuth at fundus; D, bolus entering jejunum.

cartilage and umbilicus. When the peritoneum was opened the proptosed liver at once came into view, moving up and down very freely with respiration. The lesser curvature of the stomach presented at the lower end of the incision, and immediately above it the pancreas floated forward into the wound. The gland was so movable that it could be pushed about in any direction, and appeared to have a meso-pancreas from the peritoneum forming the posterior wall of the lesser sac. The head of the pancreas was nodular and hard as compared with the body. It was undoubtedly the smaller mobile lump that had been felt before. The stomach was large and atonic, and, as was expected, the growth was pyloric. It was annular and about the size of a hen's egg There were no adhesions, and both pylorus and duodenum were unusually mobile. Alongside of the pylorus, both in small and great omentum, were a few enlarged glands, but none could be found more than an inch away from the growth. There was no sign of secondary deposits in the liver. It was decided to attempt complete removal.

Clamps were applied on the distal and proximal sides of the growth, so as to include not only the pylorus but about one-fifth of the stomach on the proximal side, and about 1 in. of the duodenum on the distal side. The small and great omentum attached to the part to be removed were then tied off with silk and divided, and finally the stomach and duodenum were cut across and the segment of stomach and bowel removed. Owing to the great disproportion in size between the two cut ends, it was thought better to

close them completely with silk, and the suture lines were invaginated with Lembert sutures.

The second stage consisted in posterior gastro-enterostomy. This was performed in the usual way, except that it was found more convenient, on account of the enteroptosis, to bring up the jejunum to the stomach in front of the transverse colon, and thus sling up the colon in the jejunal loop. The gastro-enterostomy performed, the wound was closed with sutures of silkworm gut through the whole thickness of the abdominal wall.

The patient stood the operation well. She was propped up in bed, and rectal salines and nutrient enemata given for the first two days. After this she was given by mouth, first a little port wine and water and then Benger's food and albumen water, and at the end of ten days a light solid diet. On the tenth day half the sutures were removed, and the remainder on the twelfth day, when a little clear fluid was observed to ooze from one of the suture holes. This proved to be a small gastric fistula, which closed in about a fortnight. Otherwise recovery was uninterrupted. Microscopical examination showed the growth to be a spheroidal celled carcinoma.

Seen on March 1st, 1909, fifteen weeks after operation, the patient was much stouter and in good general health. Her appetite was good. An abdominal belt for the splanchnoptosis relieved her of a dragging sensation that otherwise came on when she walked about. A test breakfast still showed absence of free hydrochloric acid. The stomach was again examined by the bismuth method in the upright position, and the fundus was now only 2 in. below the umbilicus. The tone of its wall appeared to be greatly improved, and an occasional bolus of food could be seen passing through the opening from the stomach to the jejunum.

REMARKS BY PROFESSOR G. A. WRIGHT.

My house-surgeon's excellent report of this case needs little addition. The actual protrusion of the pancreas into the wound as soon as the abdomen was opened was very remarkable. The laxity of the visceral attachments no doubt much facilitated the operation, which was unusually easy.

# Reports of Societies.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*Friday, December 17th, 1909.*

DR. J. B. HELLIER, President, in the Chair.

*Clinical Meeting.*

THE following were among the exhibits:—Mr. SECKER WALKER: *Chronic glaucoma* in a woman of 71, treated in the left eye by a modified La Grange operation, in which a wedge-shaped piece of sclerotic is excised just above the corneal margin and a small peripheral iridectomy made. The result is a weak spot in the sclerotic, through which filtration may take place. The pupil remains circular. Dr. WARDROP GRIFFITH: *Traumatic neurasthenia* in a man. About the end of July, 1909, whilst lifting a box, the patient "suddenly became unconscious," and was taken home and put to bed. During the following week he was very violent, and required restraint. Since then he had done no work, and walked with difficulty. His speech was slow, and spine hyperaesthetic. His hands showed slight intention tremor. Mr. H. LITTLEWOOD: Two cases of *Gastro-enterostomy* with recurrence of symptoms, although in both cases the anastomosis on examination proved satisfactory. Mr. ALEX. D. SHARP: A man, aged 45, with *Audible tinnitus*. He complained of a "scraping noise" in the right ear which began twelve years ago after a chill, and had been constant ever since. His hearing and drumhead were normal. The murmur could be heard if the observer placed his ear close to the patient's ear. With the otoscope the "scraping noise" was very distinct. It was synchronous with the pulse, could be modified by turning the head to the right, and made to disappear by firm pressure over the right carotid artery. Inflating the middle ear arrested the noise for about a minute. Mr. W. THOMPSON: A man on whom gastrostomy for malignant disease of oesophagus had been performed twelve months previously. Dr. A. BRONNER: A case of *Hypertrophy of the tracheal mucous membrane* in a man of 55, causing recurrent attacks of laryngitis. It was demonstrated by direct laryngoscopy. Dr. C. OLDFIELD showed a case in which *Ectopic gestation* had proceeded for nearly nine months. The fetus then died and was retained for a year. The sac then suppurated and ruptured into the colon. The menses stopped in early summer, 1908. The patient was only once seen by a doctor a year ago. Laparotomy was successfully performed, the patient at the time being in a very serious condition. Mr. MICHAEL TEALE: A case of *Rupture of the choroid* in a patient struck in the right eye some six months previously by a stone thrown by a boy in the street. When seen the following day there was extensive subconjunctival haemorrhage, together with tremulousness of the iris and several ruptures of the choroid. Some of them could still be seen concentric with the optic disc. The tremulousness of the iris had disappeared. Dr. MAXWELL TELLING showed a case of headache due to *Nodular myositis* of the muscles of the neck in a man of 28. He had had headache of considerable severity for ten years at intervals. This was always preceded by and associated with stiffness and "creaking" of the muscles at the back of the neck, and was mainly occipital. Examination in September, 1909, revealed numerous nodular and doughy thickenings, which had almost entirely disappeared under massage, with alleviation of the headache. Mr. B. G. A. MOYNIHAN: (1) A man aged 59, in whom regurgitation of almost unaltered food after twenty-four or forty-eight hours had occurred for ten years. An oesophageal diverticulum was shown by *x*-ray photography. The diverticulum was excised. (2) A woman of 38, for whom gastrostomy had been done elsewhere two years ago for supposed malignant disease of the oesophagus. A diagnosis of cardiospasm was confirmed by the *x*-ray appearance of an enormous dilated oesophagus along which peristaltic waves were seen to travel. Dilatation was effected, and the patient had gained weight and was taking food much better than formerly.

## NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

*Wednesday, December 15th, 1909.*

DR. FULTON, President, in the Chair.

BEFORE the work of the evening commenced the PRESIDENT made mention of the great loss which the profession in general, and the society in particular, had sustained in the death of Dr. Ransom, and suggested that a resolution of sympathy should be sent to his widow. The motion was accepted unanimously, all members rising in silence to signify their assent. Dr. C. H. CATTLE, in a paper on *Milk, sweet and sour*, contrasted the various views as to whether man is morphologically a carnivorous or a herbivorous animal, and summed up chiefly in favour of a lacto-vegetarian diet. Over-civilization, he said, led to either overfeeding and ignorant feeding, or else underfeeding and ignorant feeding, the rich overfeeding and the poor being underfed. Man was too carnivorous, and many diseases, such as gout and arterio-sclerosis, were due to indulgence in food containing purin bases. The poor man's diet consisted chiefly of bread and butter, tea, cheese, potatoes, and a very little meat. He seldom took milk, a form of food which medical men should prescribe more often than was the case. It contained practically no uric acid basis, and cheese with bread and milk was an almost perfect diet. Opinion still seemed to favour the hand milker to the mechanical milker. Owing to impurities milk should always be heated to at least 160° F. before use. On account of the putrefactive agents in the colon being more active in an alkaline medium, it was a distinct advantage to "sour" milk, and so ensure that it should reach the colon in an acid form. In fact, Metchnikoff looked upon sour milk as an intestinal antiseptic. Souring was best brought about by adding Bulgarian bacillus to boiled milk and allowing it to incubate. The author was now treating all his typhoid patients by this method, and with gratifying results. He especially recommended it in cases of ulcerative colitis.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Clinical Meeting.

*Wednesday, December 15th, 1909.*

Dr Byrom Bramwell, President, in the Chair.

The following were among the exhibits: Dr. Archibald M'Kendrick: *Post-parturient paralysis* in a woman aged 24, affecting the muscles supplied by the left peroneal nerve, the patient exhibiting paralytic drop-foot and flat-foot. By means of a simple elastic apparatus the patient could walk with little disability, and already slight active movements of the paralysed muscles promised an eventual recovery. Dr. Dingwall Fordyce: Four cases of *Primary furunculosis* in children under 1 year cured by staphylococcic vaccine. In every case the *Staphylococcus aureus* was found. In two cases a single dose of 80 million of the stock vaccine was effectual; in the other two, two similar doses of the child's own vaccine were used. Dr. E. Bramwell: A case of *Traumatic hysteria*, with functional hemianaesthesia and great paresis of the right upper limb. There was no evidence of organic lesion. The case illustrated the difficulties arising under the Workmen's Compensation Act. Dr. W. Russell: A case of *Hypertrophic osteo-arthropathy*, with great clubbing of fingers and toes, thickening of wrists, stiffness of elbow, shoulder, and knee-joints, general weakness, and marked sweating of hands and feet. There was no pulmonary disease. Some improvement had followed the use of iodolysin; fibrolysin had done no good. The President: (1) Two cases of *Tabes*, one with typical Charcot joints in the right hip and left shoulder and elbow, the other with a remarkable lordosis of the spinal column, probably due to a similar condition of the lower dorsal and lumbar vertebral joints. (2) A case of *Clonic muscular contractures* closely resembling Thomsen's disease, but by its association with almost total anaesthesia diagnosed as a functional condition, and completely cured by isolation and psycho-therapeutics. Dr. Norman Walker: Some cases of *Lupus erythematosus* cured by the application of $CO_2$ snow. The snow had acted far more rapidly than any other therapeutic agent and had left a remarkably good scar. It was also very successful in a case of rodent ulcer. Dr. Boyd: A case of severe *Diabetes mellitus* in which a single "hunger-day" caused a complete disappearance of glycosuria for twenty-four hours, thereafter sugar reappearing only in small quantity. Professor F. M. Caird: (1) A case of *Gangrenous appendicitis* with general peritonitis, temporarily relieved by operation, but relapsing into extreme weakness and prostration; when almost moribund, the use of peptonized milk was followed by recovery. (2) A case of forward *Dislocation of radius and ulna* with fracture of the internal condyle, in which reduction could only be effected by open operation, and from which a good result was obtained. Mr. J. M. Cotterill: (1) A case of *Inoperable sarcoma* of neck, temporarily improved by Coley's fluid and $x$ rays. (2) A case of forward *Dislocation of the first cervical vertebra*, followed only by pain and slight limitation of movement. Mr. J. M. Cotterill and Mr. Scot Skirving: Patients, after operation, illustrating the use of *Sterilized oil* in the peritoneal cavity as a preventive against the formation or re-formation of adhesions. Professor Alexis Thomson: (1) A case of *Osteo-myelitis fibrosa*, with tumour-like bossing of the skull, and multiple fractures and curvature of both femora. (2) A case of pistol-shot wound of the abdomen, with recovery after closure of five perforations of the small intestine. Mr. C. W. Cathcart: A carcinoma of the descending colon in a man aged 23. The patient showed a typical *Achondroplasia*. Possibly the early development of cancer had some connexion with his general condition. Mr. D. Wallace: A case of *Fracture of the lower dorsal spine* with haemorrhage into the cauda equina, causing paralysis of the lower limbs, with practically complete recovery. Mr. H. J. Stiles: A *Retrovesical tumour* weighing 1 lb. 6 oz. in a man aged 68, removed by transvesical operation. It was doubtful whether the tumour originated in the retrovesical cellular tissue or in the lateral lobe of the prostate. The result was recovery without urinary fistula. Dr. Logan Turner: A case of recovery from *Septic meningitis* complicating chronic middle-ear suppuration. Streptococci were isolated from the cerebro spinal fluid, and intraspinal injections of antistreptococcal serum were given. Mr. J. W. Dowden: Two cases of *Ventral hernia* successfully treated by overlapping of fibrous structures and anterior sheaths of recti. Mr. J. W. Struthers: A case of fracture of the glenoid fossa of the scapula, without dropping of the arm or crepitus, in which the only sign was the inability to abduct or hold out the arm.

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## LIVERPOOL MEDICAL INSTITUTION.

*Thursday, December 16th, 1909.*

Mr. T. H. Bickerton, President, in the Chair.

Dr. J. M. Hunt showed a case of *Vincent's angina;* there were two other cases in the same family. He discussed the diagnosis between this condition and cases of diphtheria and syphilis, and Dr. E. E. Glynn demonstrated the characteristic fusiform bacilli and "spirilla" from the case both in smears and with dark ground illumination. Dr. Hubert Armstrong described a case of *Heart-block* occurring in a boy aged 5½ years. The symptoms began about a week after an alleged fall upon the head. At first there were severe headache, occasional delirium, temperature 104° and 105°, with pulse 48 and lower. There were no other symptoms, and the nature of this febrile attack, which lasted five days, was not clear. The child recovered, but a fortnight later had a series of epileptiform attacks accompanied by profound syncope, and lasting over five days. On the second day he was admitted to hospital and had eight convulsions in three days. In the intervals there was so much cerebral irritation that the case was regarded as one of meningitis until lumbar puncture revealed a normal cerebro-spinal fluid. This irritability disappeared twenty-four hours after the last fit. The pulse-rate during the first ten days varied erratically between 28 and 84. It then became constant between 50 and 60 for five days, when it rose to above 100 for four days. It then fell to between 40 and 50, and has maintained the same rate to the present. Simultaneous venous and radial pulse tracings taken during this last period show typical dissociation of auricular and ventricular rhythms, the auricles beating about 70 when the ventricular rate was 45. The phenomenon was also demonstrated on the fluorescent screen. There had been no further epileptic fits since the third day after admission, and the child, except for a little cyanosis and incapacity for exertion, now appeared quite comfortable. There was a slight mitral regurgitant murmur, but the cause of the heart-block had not yet been determined. Dr. John Hay, in a paper on the same subject, mentioned 6 cases of Adams-Stokes disease which had been under his supervision during the last two years. Five of these were of the arterio-sclerotic type, the sixth was apparently caused by a severe gonococcic infection in a young woman. The patients exhibited all the grades of severity, ranging from slight attacks of vertigo and transient blurring of consciousness with bradycardia, to grave syncopal and epileptic seizures. Records were shown demonstrating the actual transition from partial to complete block, and the return from complete to a two to one rhythm without the appearance of any subjective symptoms. One of the cases mentioned had been greatly benefited by potassium iodide, and the gonococcal case had improved after the exhibition of a gonococcal vaccine.

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## THE ROYAL SOCIETY.

*Thursday, December 9th, 1909.*

Sir Archibald Geikie, K.C.B., President, in the Chair.

*Haemagglutinins, Haemopsonins, and Haemolysins.*

Drs. L. S. Dudgeon and H. A. F. Wilson presented a third report on the presence of haemagglutinins, haemopsonins, and haemolysins in the blood obtained from infectious and non-infectious diseases in man, based upon some hundreds of experimental observations made upon normal and pathological blood. Their conclusions were as follows:

1. Auto-agglutination of the red blood cells, as tested for by the methods which we have employed, may be shown to occur with specimens of pathological blood only occasionally, but never with normal blood; and auto-haemolysis has not been met with.

2. Iso-agglutination is often met with in specimens of blood obtained from patients suffering from the same disease.
3. Haemagglutination is largely a specific phenomenon, both in normal and pathological blood, and the specific effect can be shown to persist even if the red cells have been subjected to high degrees of temperature or to complete drying.
4. Haemagglutination and bacterial agglutination are distinct phenomena.
5. Well-marked iso-haemolysis in specimens of normal and pathological blood is not common, although some degree of haemolysis can frequently be demonstrated.
6. Concerning phagocytosis: It would appear necessary to avoid mixing specimens of normal or pathological blood, because just as samples of serums are known to vary in value, so do the leucocytes, although to a less extent, whether they are obtained from specimens of normal or pathological blood. Still further, by mixing samples of normal or pathological blood a haemolytic action may be induced which in itself has been found capable of exciting abnormal results in phagocytosis.
7. It appears to be incorrect to regard a specimen of blood as normal until it has been subjected to a detailed examination by the methods referred to in this and the two previous communications, quite irrespective of its actual source.

*Cortical Lamination and Localization.*

Dr. F. W. MOTT, F.R.S., Dr. E. SCHUSTER, and Professor W. D. HALLIBURTON, F.R.S., contributed a paper on cortical lamination and localization in the brain of the marmoset. The research had been carried out on lines similar to that previously published by two of the authors in relation to the brain of the lemur. A series of sections of the cerebral cortex had been examined in order to map out the extent and boundaries of the types of cell lamination observed. It was now well known that these differences were correlated with differences in function, and this method of histological localization of function (as it might be termed) had been controlled by the physiological method of stimulation.

## ROYAL SOCIETY OF MEDICINE.

### THERAPEUTICAL AND PHARMACOLOGICAL SECTION.

*Tuesday, December 7th, 1909.*

Professor A. R. CUSHNY, President, in the Chair.

DR. G. HERSCHELL opened a discussion upon the *Utility of the lactic acid bacillus* in therapeutics. Suitable cases, he said, must be chosen if a valuable means of treatment was not to fall into disrepute. An active preparation also must be used. Of the solid preparations on the market only two or three were active. Suitable cases were those in which there was an abnormally great putrefaction of proteid and an absorption of toxins from the bowel. Unsuitable cases were those in which symptoms were due to increased carbohydrate fermentation. In treating the former he had had great success. Dr. F. W. GOODBODY had searched for evidence of alteration in the chemistry of the faeces, but with little effect. Aromatic sulphates were apparently not diminished. Dr. VAUGHAN HARLEY had also found no chemical change as a result of the treatment. He thought the clinical improvement due to a psychological effect. Dyspepsias of functional origin were likely to improve, not those associated with organic change. Dr. W. BULLOCH, as a result of careful bacteriological examination, considered that all the solid preparations might be discarded as worthless. None contained active bacilli. Dr. EYRE, working with his own strain, had success in treating certain infections of the colon by pathogenic micro-organisms. Successive cultivations from the faeces had shown on this treatment a rapid disappearance of the organism concerned. Dr. ROBERT HUTCHISON expressed himself as profoundly sceptical of the results claimed. He hoped that what had been said would go far to squash a craze. Dr. LANGDON BROWN had certainly seen indicanuria disappear. Dr. C. W. MILLER regarded soured milk as a food rather than as a drug. Dr. HERTZ pleaded for the necessity of bacterial control. In colitis the treatment had done much good. Dr. HERSCHELL replied.

UNDER the will of the late Mr. James Thomas Slater, of Wood Street, City, the Great Northern Central Hospital and the Hospital for Diseases of the Chest, Victoria Park, each receives 1,000 guineas, and the Hornsey Cottage Hospital £1,000, for the endowment of beds to be called the "Slater" beds.

# Reviews.

## THE FAMILY AND THE NATION.

*The Family and the Nation*, by Mr. and Mrs. WHETHAM, is a study in natural inheritance and social responsibility.[1] Recent results in genetics are applied not only to the more pressing economic problems of to-day, but the consequences of these results are pushed to their logical conclusions in relation to the future welfare of the nation. The text of the book may, indeed, be found in the statement that the "essential factor in the rise and fall of nations is the quality of their people."

The earlier chapters deal in a general way with the known facts of variation and heredity, and a clear, succinct, and intelligible account is given of the principles of Mendelism. The authors next proceed to apply these facts and principles to such qualities as mental ability, mental deficiency and the like in the British race. The conclusions are both striking and instructive. Pedigrees are furnished of deaf-mutes which prove conclusively that deaf-mutism is not only directly inherited from parent to child, but that it will behave as a Mendelian character and will reappear in a grandchild born of normal parents, or even in a later generation of great-grandchildren, though both parents and grandchildren may have been normal.

Similar cases are quoted of the inheritance of the tendency to pulmonary tuberculosis, mental defect, and its correlatives crime and immorality. The evidence available leaves little room for doubt that heredity plays an important part in the transmission not only of physical defects but also of moral perversions. Equally strong evidence is forthcoming of the same tendency in regard to mental ability. This had been demonstrated some years ago by Galton, upon whose work on *Hereditary Genius* the authors freely draw.

It is not, however, in the bare statement of these facts that the interest of the book lies, but in the reflections and conclusions to which they give rise. Dr. Tredgold has put it on record that the average number of children in families which now use the public elementary schools is about 4, whereas in the degenerate families whose children are handed over to the special schools the average number is 7.3, *not including* the still-born. It is true that a somewhat larger proportion of the children of the latter class die at an earlier age than among the former. Out of 1,269 children belonging to 150 families, 485 were either still-born or died before 20 years of age. Of the remaining 784, no fewer than 328 were either mentally afflicted or diseased, or became paupers or criminals. The cost to the State is enormous. Statistics are furnished to show that the average birth-rate maintains a high level in the ranks of the unskilled labourers and of the feeble-minded, whereas there has now been for some years an appreciable diminution in the size of the families by the educated class and of the skilled artisans. If the present relative birth-rate in these two sections of the community be maintained, every 1,000 members of the educated and skilled artisan class will, in the course of three generations be represented by 687 descendants, while 1,000 of the unskilled and feeble-minded will be replaced by 3,600, a proportion of about 5 to 1. These statistics appear to warrant the conclusion that a rapid deterioration of the community is in progress, since not only will the "undesirables" rapidly outnumber the "desirables," but there will also be a constant hereditary transmission and accentuation by intermarriage of all those qualities which make them undesirable.

There is, however, one point upon which the authors' conclusions may be questioned. It is the extent to which environment contributes for good or ill. They admit that it does have an effect, but the general inference from the book is that they consider it of minor importance. No doubt its importance is secondary to that of inheritance, and social reformers would do well to consider this, for there is a tendency at the present time to attach too great, if not, indeed, supreme, importance to environment; but

[1] *The Family and the Nation*. By William Cecil Dampier Whetham, M.A., F.R.S., Fellow and Tutor of Trinity College, Cambridge; and Catherine Durning Whetham, his wife. London: Longmans, Green, and Co. 1909. (Roy. 8vo, pp. 241. 7s. 6d

we are inclined to think that the writers of this book underestimate the part played by environment. We cannot accept even the crude test of examination successes, nor the large percentage of eminent men descended from 286 judges, as being instances of hereditary ability only. Environment is a very decided factor. A judge holding a lucrative post is able to send his son to the best schools and to provide holiday tutors, thus making examination successes, whether for a scholarship or a wranglership, more possible than for the son of a parent with limited means; moreover, public school and university life, by virtue of the friendships formed, make for influence. This is human nature, and is by no means the unmixed evil some would have us believe. Last, but by no means of least importance, are the better food and hygienic surroundings during childhood and youth, which are of great value in producing a *mens sano in corpore sano*. It would be very interesting to inquire what percentage of persons attain eminence in whom no hereditary influence is recognizable and whose environment might be regarded as adverse.

The causes of the decline in the birth-rate are dealt with, and the interesting fact is recorded that the old high level is maintained only among the clergy, Roman Catholics, and Jews. The authors make tentative suggestions as to means o improvement in present conditions, and put forward one very sound idea which the Chancellor of the Exchequer would do well to consider—namely, the exemption from income tax of all money expended on education, expenses which often press unduly on the professional man of limited means.

Many other interesting points—such as the employment of women in factories, child labour, etc.—are discussed in this suggestive book, which is one every medical man and, indeed, every one interested in the social welfare of the nation—in a word, every good citizen—should read. The authors disclaim any idea of being alarmists. They have drawn attention to the canker which is in our midst, and in doing so they have done good service. Not only is the matter of the book worthy of study, but the style is pleasant and easy. The book can be strongly recommended.

## ALCOHOLISM AND MORPHINISM.

THE subject of intemperance is one closely associated with the health of the nation and the sociological development of the race. Volumes almost innumerable have been written on it, and quite recently another, entitled *Intemperance*, has been added by the BISHOP OF CROYDON.[2] Though many of his readers will not be prepared to travel with him to the extreme goal of total abstinence, all will concur that temperance is advisable, and will approve the strenuous, but withal tolerant, way in which Dr. Pereira deals with his subject and pushes home his conclusions. It may be doubted whether the argument throughout the book is not here and there somewhat strained; is it, for instance, a fair statement of fact that "'gin livers' in children under 3 years of age is a common feature of hospital practice"? The experience of most hospital physicians would not exclude the occurrence of such cases, but would hardly confirm the statement that, in relationship to other diseases, they are common. Other extracts might be quoted to show that enthusiasm for his subject has tempted Dr. Pereira now and again to incorporate as conclusive statements and opinions which are not worthy of such full acceptation. But the merit of his volume is undoubted, while the simple and attractive style in which it is written enhances its value as a practical and temperate contribution to a subject of the very greatest importance. The bishop's medical readers will be grateful to him for the wise words in which he refers to secret "cures" for drunkenness, which at the present day are advertised and boomed with all the assurance and impudence of offensive quackery. He says:

> For myself, I dare not speak of these "cures" with too much confidence. They can only be justly judged by the test of time—of a longer time than we have at present to go by. If, indeed, a specific has been found which will allay the intolerable and miserable craving which alcohol creates, it seems sad that the poorest should be unable to secure it. So long as it is kept as a secret discovery, to be used for the enrichment of private individuals rather than for the good of suffering humanity, so long will a suspicion of its efficacy continue. If it has, indeed, the virtue that is claimed for it, it should be submitted to the examination of the medical world, whose approval would seal and determine the genuineness of its claims.

In the preface to his volume on *The Morphia Habit and its Voluntary Renunciation*,[3] Dr. OSCAR JENNINGS commits himself to the assertion that "one medical man out of four is a drug habitué, usually a morphinist." Whether this be true of France we do not know, though we take leave to doubt it, but we are convinced that in this country there is no such colossal addiction to drug habits either in the medical or any other profession. The book is devoted to an exposition of the writer's methods for the cure of the morphine habit. He claims most excellent results from the administration of sodium bicarbonate, Vichy water, and heart tonics, especially spartiene, combined with the use of Turkish baths. But excellent though such a plan of management may have proved itself in the hands of Dr. Oscar Jennings, it does not justify the statement that "Sir Clifford Allbutt and Dr. Rolleston have come to a most mischievous conclusion" because they do not agree with his views, and are not prepared to accept the conclusions at which Dr. Jennings has arrived. Indeed there are many who will share Sir Clifford Allbutt's and Dr. Rolleston's scepticism when they read in one of the early chapters of Dr. Jennings's book that "it may be remarked once more that it is useless to attempt the cure, by any means, of a morphia patient with a wrong mentality—that is to say, of one who does not really *intend* to give up the addiction if he be helped efficiently." Because herein lies the whole crux of the difficulty in dealing with such cases. If the "mentality" can be governed, then the cure by such medicinal, balneological, and dietetic measures, whatever they be, as are suited to the idiosyncrasy of the patient will make him well. He will probably recover even without the use of Vichy water, as to which Dr. Jennings is so enthusiastic. The greater part of the book is devoted to the description, in somewhat wearisome detail, of a case which recovered after twenty-five years' slavery to the morphine habit. But such a recovery is by no means unique, and equally striking cases might be readily adduced in testimony of the success of different forms of management. Other cases are referred to shortly in Dr. Jennings's book, one being that of a physician, about 30 years old, described as suffering from "hepatic paludic neurasthenia." This sounds very terrible, but we do not recognize in the name any known disorder, and it is not to be found in the official *Nosology of Disease*. Dr. Jennings's volume is pleasantly written, and carefully describes the methods in which he believes for weaning the morphinomaniac from his demon. It is, moreover, the outcome of considerable experience in dealing with such cases, but its interest is practically confined to the relation of one case, and the bulk of a volume of close upon 500 pages is a "tidy yarn to spin" even about a patient who has been the victim of an evil habit for so long a period as twenty-five years.

## THE DISEASE OF OLD AGE.

IN his book on old age, Dr. LORAND has put together a large amount of learning and has dealt with an immense number of subjects.[4] It is not always easy to summarize his views, as his method is frequently to write with apparent conviction first on one side and then on another, and to add a few guarding sentences to which he can appeal. However, we think we shall do him justice if we say that his view is that old age should be considered to be a chronic disease brought about by changes in certain glands, of which the thyroid is the most important, and that by preventing or avoiding these changes it is possible to postpone the advent of old age for years, and to prolong the average duration of life. In his enthusiasm he exclaims: "Why should we feel old at 50 and leave

[2] *Intemperance.* By Henry Horace Pereira, Bishop of Croydon. New and revised edition. London, New York, Bombay, and Calcutta: Longmans, Green, and Co. 1909. (Crown 8vo, pp. 183. 2s. 6d.)

[3] *The Morphia Habit and its Voluntary Renunciation.* A Personal Relation of a Suppression after Twenty-Five Years' Addiction. With Notes and Additional Cases. By Oscar Jennings, M.D Paris. London: Baillière, Tindall, and Cox; Paris: Brentano. 1909. (Demy 8vo, pp. 502. 7s. 6d.).

[4] *Das Altern, seine Ursachen und seine Behandlung durch hygienische und therapeutische Massnahmen. Ein Handbuch für eine rationelle Lebensweise.* Von Dr. A. Lorand. Leipzig: Dr. W. Klinkhardt. 1909. (Roy. 8vo, pp. 265. M.5.)

this beautiful world at 60 or 70 when it is so easy by courage and foresight to enjoy for many long years the sunshine of youth and the joy of life!" (Preface, p. vi). Next to the thyroid the integrity of the sexual organs is the most important for prolonging life, and he maintains the opinion, which we take leave to doubt, that animals and human beings whose sexual glands have been removed become prematurely old. Even if we accept his theory, it is by no means so easy to secure the needful conditions for the attainment of old age, as the integrity of these important glands may be injured by many agents, including the attacks of infectious disease to which we are all liable in childhood, overwork, business cares and worry, anxieties, grief, and improper diet. The last means all but the most moderate use of meat, alcohol, coffee, tea, and tobacco. He concludes his book by laying down the following twelve rules for the attainment of old age:

1. Live as far as possible in fresh, healthy air and sunshine, avoiding great heat; take exercise regularly and a long walk every day.
2. Eat meat in moderation, only once a day; live chiefly on the raw milk of healthy cows or goats; eggs, cereals, green vegetables, butter, cheese, and fruit; every third month abstain from meat; masticate your food thoroughly.
3. Take a daily bath and a Turkish bath once a week.
4. Get a daily movement of the bowels and take a mild laxative once a week.
5. Wear porous clothes, which are best of cotton, but in winter wear woollen underclothing; let the shirt collar be wide; clothes should be light in summer and dark in winter; wear low shoes.
6. Go to bed early and rise early.
7. Sleep with open windows in a quiet room; sleep should not be less than 6½ hours, nor for men exceed 7½; for women 8 to 8½ hours.
8. Keep one day in the week for complete rest, and, if possible, spend from Saturday to Monday in the country.
9. Avoid worry and excitement; do not trouble over the irrevocable past or what the future may bring; do not talk about unpleasant things; be determined.
10. Be moderate in sexual relations, but do not repress the instinct; marry, and if you lose your wife, marry again.
11. Avoid over-heated places, especially those heated with steam or badly ventilated.
12. Be moderate in the use of alcohol, tobacco, coffee, and tea.

These are Dr. Lorand's precepts; our readers may follow them if they will—or can.

## GOUT.

PROFESSOR STRAUSS'S small book on *Gout*[5] completes the series of monographs on *Diseases of Metabolism and Nutrition* issued in English under the direction of Professor von Noorden, and edited by Dr. Boardman Reid, of Philadelphia. As the volume contains something less than seventy pages of large leaded type it is evident that the subject is not dealt with in a very exhaustive manner. Clinical history and symptomatology are omitted, and only pathogenesis and treatment discussed. The chapter on the pathogenesis of gout gives briefly and clearly the modern views on the subject, the author maintaining a midway position between conflicting opinions. While he says that the retention of uric acid is of more importance as a cause than some allow, he lays stress on its deficient destruction in the body, his personal views being best illustrated by the rules he lays down for treatment. In these he forbids purin bodies, but allows eggs and cheese, and even a small quantity of meat (½ lb.) preferably boiled: extractives, meat soups and beef-tea are excluded. Complete abstinence from tea, coffee, cocoa, and alcohol is advised. The use of alkalis is defended mainly on the ground that they have stood the ground of experience, and he recommends the principal alkaline mineral waters, whether used at home or taken at a watering place in combination with treatment by baths, massage, and exercises. He employs colchicum, sodium salicylate, urotropin, and "later in all cases quinic acid," in spite of the doubt which recent research has thrown upon its power to influence the excretion of uric acid. The book is disfigured by many mistakes in printing—for example, leukaemia is spelt "lucaemia" (footnote p. 13); on p 15 Wollaston is made into a German and called "von Wollaston"; on p. 19 we read "the experiments of Kionka, which have already been mentioned," but we cannot find any reference to them; "Possel" (p. 21) is apparently a misprint for "Koessel"; (p. 25), "Stockvis" for "Stokvis"; (p. 37), "trioyxpurin" for "trioxypurin." More care might have been exercised in seeing this otherwise useful little work through the press.

[5] *Gout.* Being part viii of several clinical treatises on the pathology and therapy of disorders of metabolism and nutrition. By Professor H. Strauss, Royal Charity Hospital, Berlin. Authorized translation directed by N. B. Foster, M.D. Bristol: John Wright and Sons, Limited; and London: Simpkin, Marshall, Hamilton, Kent and Co. 1909. (Demy 8vo, pp. 70. 3s. 6d.)

## THE CLUB DOCTOR IN FICTION.

MR. STEPHEN ANDREW has succeeded in writing a novel, *The Serpent and the Cross*,[6] which has something of originality, and which is far above the ordinary novel both in subject matter and in treatment. The main theme is the hollowness of a sort of fashionable religious orthodoxy, by no means uncommon, which panders to the weaknesses of the wealthier classes, and, while helping the poor in a routine and supercilious way, takes care to let them know their place. A curate, disgusted with the religious sham of his fashionable vicar, becomes inveigled in an attempt to overthrow Christianity, and to found a new religion in which the leading article of faith was "follow the promptings of Nature, follow the promptings of your own wills and desires." For a time this religion of "The Serpent" rapidly spread, and the author describes in a vivid way the evil effects on society of a religion of selfishness and the reflex good effects on the Christian Church. Some social problems are sketched, and to medical men there is a special interest, as one of the characters is a young doctor who goes as assistant to a practitioner in the Midlands with a large club practice. The description of cheap club practice is evidently drawn by a medical man who has seen it at its worst, as the following extracts show:

"To make a living by club doctoring," says the young assistant, "is low-down work. It means that the doctors are sweated and the patients neglected. Club doctoring means that a large number of people die every year from want of care and attention. The doctor who does little else than club doctoring has so much to do that he can do none of it properly. . . . I myself have paid as many as sixty visits in a day. It means that not a single patient is examined properly, not a single one is really diagnosed. He gets his symptoms treated, and if they are not due to anything serious, as is usually the case, all goes well, but if there is anything really the matter the patient may pay for want of diagnosis with his life. . . . Then consider what the effect is on the doctor; he never makes a diagnosis, until in time he is quite unable to diagnose anything. . . . The better class doctors have tried to abolish this club work, with the result that people have said they were thinking of nothing but their own pockets. Fools! Club work pays as long as the club doctor has no conscience. Doctors of the baser sort know this, and carry on in spite of all attempts to abolish the iniquitous system."

The young doctor had six months in such club work and then resigned, because he saw that "rule-of-thumb doctoring means loss of self respect to the doctor and loss of health and even of life to the patient." There is, of course, much that is perfectly true in all this; the evils of club practice are too glaring to be overlooked, and the statements made in this book are not all simple fiction, but are supported by facts. The religion of the Serpent is a deification of Self; it failed because it made every man into his own little god, and the creators of the cult forgot that there is no room in this world for more than one God. The whole book is eminently readable, both for its style and its material, and has the additional recommendation that it is full of the common sense philosophy of everyday life.

[6] *The Serpent and the Cross.* By Stephen Andrew. London: Greening and Co., Limited. 1909. (Cr. 8vo, pp. 320. 6s.)

## NOTES ON BOOKS.

WE have received three fresh volumes of the yearbook of progress in internal medicine,[7] founded by Ebstein. It is now issued by new publishers, and edited by Dr. SCHREIBER, of Magdeburg, in association with Dr. RIGLER, of Leipzig, and a large number of assistants. The volumes to hand are the first volume for the year 1908, and both volumes for the year 1902-3. The general plan of the work is to give classified lists of all papers published on various subjects, adding brief notes as to their contents when the titles themselves

[7] *Jahresbericht über die Fortschritte der inneren Medizin im In- und Auslande.* Bande I und II, 1902-3; Band I, 1908. Leipzig: Verlag von Dr. Werner Klinkhardt.

are insufficiently explanatory. The design appears to be to carry back the record of progress to the beginning of the present century, but, in order to give the publication as a whole a present as well as a historical interest, the intention is to burn the candle, so to speak, at both ends, by publishing volumes relating to recent and long past years whenever and so soon as they can be prepared. The value of the work is not less evident than the immense difficulty of the task. It will, for instance, greatly facilitate the work of those who when dealing with any subject desire to leave no previously expressed view unconsidered, and it will aid all writers in giving due credit to authors who have helped to build up all that is known on any such considered subject. English and American writers, so far as can be seen, have received ample recognition, but in view of the number of years that have elapsed since that to which two of the volumes relate, this is a difficult point to test. We notice in one or two places apparent misprints, the dates of the year given being other than those to which the publication relates.

The latest volume of the *Transactions of the American Laryngological Association*[8] covers the proceedings of that body at its thirty-first annual meeting at Boston at the beginning of last June. It includes some thirty-four papers, five of which were contributions to a discussion on nasal and pharyngeal conditions as causative factors in aural disease, while three others were introductory to a debate on the surgery of the oesophagus. One of the latter deals with the question from the standpoint of the general surgeon, another from the standpoint of a laryngologist, while the third gives a detailed description of three cases in point. Included amongst the general papers are a report of a fatal case of status lymphaticus occurring in a patient whose tonsils were removed under cocaine-adrenalin anaesthesia, an account of a case of laryngeal carcinoma under observation for thirteen years, reports of cases illustrating progress in the surgical treatment of chronic stenosis of the larynx, and a short paper on the bacteriology of the normal nose.

The appearance of a second edition of Major E. A. R. NEWMAN'S *Manual of Aseptic Surgery and Obstetrics*[9] justifies the praise bestowed upon the book at its first publication. The few blemishes then noted have been removed, and the usefulness of the book considerably increased by the addition of chapters on asepsis in obstetric practice. Major Newman is obviously a man of sound common sense: he is neither academic nor faddy; he appreciates thoroughly the underlying principles of aseptic surgery, and describes their application with due regard to what is actually practicable and what is mere idealism. Whilst the little volume will be particularly useful to those who practise in India, it is an easy and reliable guide to aseptic habit under all conditions.

The *A B C of Nursing in Accidents and Illnesses*[10] contains much that is useful, but it requires careful revision before it can be recommended. It is said to have been revised by a medical man, but we hardly think he would endorse the advice to hook out a foreign body from the nose with a hairpin. The book is presumably intended for untrained individuals, as it is not sufficiently detailed for trained nurses. It contains a good many statements with which we are unable to agree, but it may be found useful in household emergencies.

The *Manual for the Church Lads Brigade Medical Corps*[11] contains elementary anatomy, first aid, stretcher, and other drill and regulations for camp, making a book of over 150 pages, which is very fully illustrated. It is apparently based on the manual for the Royal Army Medical Corps, and is very complete. There seems to be a sort of special first-aid physiology which one grows accustomed to find in the manuals on this subject, but it is at the best misleading to be told that "there are two kinds of blood—arterial and venous"; we might as well say there are two kinds of heart—contracted and dilated.

The first edition of Dr. BOSANQUET'S *Serums, Vaccines, and Toxines* was published five years ago. A second edition has now been produced under the joint authorship of Drs. BOSANQUET and EYRE.[12] Comparing the two editions, we find that the changes in the later one are not very great, though in the process of revision some amount of new information has been incorporated. Of the improvements made in the new edition, we may mention a note on paratyphoid infections at the end of the chapter on enteric fever, an account of the vaccine treatment of gonococcal infection, three pages on cerebro-spinal meningitis, the description of some recent work on the diagnostic uses of tuberculin, and a brief account of the serum reaction in syphilis.

[8] Published for the Society by the McConnell Printing Company, New York.

[9] *Manual of Aseptic Surgery and Obstetrics.* By E. A. R. Newman, M.D., Major I.M.S. Second edition. Calcutta: Thacker, Spink and Co. 1908. (Cr. 8vo, pp. 334, figs. 45. Rs. 5.)

[10] *An A B C of Nursing in Accidents and Illnesses.* By E. M. Clarke, C.O.M. Revised by P. Barnett-Bentley, M.R.C.S., etc. London: The Scientific Press, Limited. (Dbl. demy 32mo, pp. 62. 1s.)

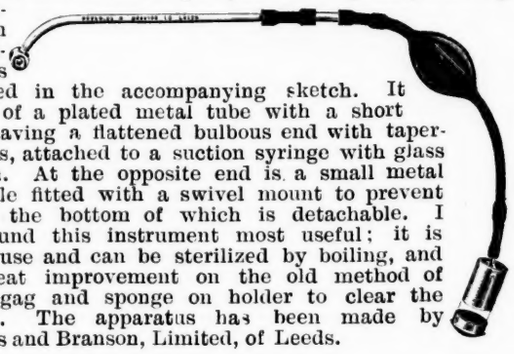
[11] *Manual for the Church Lads Brigade Medical Corps.* Fifth edition. London: The Church Lads Brigade. 1909. (Demy 16mo, pp. 172; figs. 66. 6d.)

[12] *Serums, Vaccines, and Toxines in Treatment and Diagnosis.* By Wm. Cecil Bosanquet, M.A., M.D., F.R.C.P., and John W. H. Eyre, M.D., M.S., F.R.S. Edin. Second Edition. London: Cassell and Co. 1909. (Cr. 8vo, pp. 570; illustrated. 7s. 6d.)

## MEDICAL AND SURGICAL APPLIANCES.

### *A New Mucus Evacuator.*

MR. WALTER C. MAYO (Headingley) writes: A small apparatus for the purpose of extracting (by suction) mucus and saliva from the pharynx and air passages during administration of anaesthetics is illustrated in the accompanying sketch. It consists of a plated metal tube with a short curve, having a flattened bulbous end with tapering holes, attached to a suction syringe with glass insertion. At the opposite end is a small metal receptacle fitted with a swivel mount to prevent spilling, the bottom of which is detachable. I have found this instrument most useful: it is easy to use and can be sterilized by boiling, and is a great improvement on the old method of using a gag and sponge on holder to clear the pharynx. The apparatus has been made by Reynolds and Branson, Limited, of Leeds.



### *Apparatus for Continuous Irrigation with Hydrogen Peroxide.*

Mr. R. DOUGLAS LAURIE, M.B., House-Surgeon, Royal Hants County Hospital, Winchester, writes: The oxygen liberated from hydrogen peroxide by contact with the necrosed tissue is in a nascent state, and therefore a powerful germicide and stimulant to the walls of the cavity. It also acts mechanically in carrying effete matter from the surfaces, while its solvent action on blood aids the removal of clots. Its action, however, ceases shortly after application, namely, when all the oxygen is evolved. To get a more prolonged action an apparatus is employed which delivers the peroxide in a slow, steady stream into the cavity. This comprises a reservoir, a tube to indicate the rate of flow, and a clamp to regulate it. The apparatus is placed some two or three feet above the level of the patient. It has been found most suitable to dilute the peroxide to "5 volumes." With the solution running at the rate of 10 to 20 drops a minute, 6 oz. should be sufficient to irrigate the average sinus for four hours, say two in the morning and two in the afternoon. It is important that the tube should lie at the deepest part of the sinus or abscess cavity, to ensure the whole surface coming in contact with the peroxide. The mouth of the wound may with advantage be kept open by a short piece of wide drainage tube, and covered with some absorbent dressing such as gauze or cellulose. The tube may be fixed in position by adhesive strapping. This treatment has been used in some thirty cases, chiefly appendix abscesses; but also in empyema, tuberculous sinuses in soft tissues and in bones, and chronic mastoiditis. The results were very satisfactory, particularly in cases of appendix abscess. In several cases after two or three applications the abscess cavity has become clean, ceased discharging, and healing has taken place in a week or ten days. In a case of large parotid abscess, which contained a quantity of foul-smelling pus, due to *B. coli*, ordinary drainage and irrigation were employed through two incisions for several days with slight improvement. Continuous irrigation with peroxide was then employed, and in five days only dry dressings were needed, there being no discharge. One or two cases have been disappointing, for although at first there was rapid improvement, the sinuses refused to heal. In these the peroxide was discontinued after a week, and dry gauze plugs inserted, when healing then gradually took place. Septic superficial wounds have also shown rapid improvement under continuous peroxide irrigation. If used economically the expense of the hydrogen peroxide is not great, and is justified by the more rapid recovery. The apparatus is made for me by Messrs. Allen and Hanburys, Limited.

# RECOLLECTIONS OF A LONG PROFESSIONAL LIFE—1844 TO 1904.

By LOMBE ATTHILL, M.D.,

EX-MASTER OF THE ROTUNDA HOSPITAL, DUBLIN; AND EX-PRESIDENT, ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

I WAS bound as an apprentice in June, 1844, to Mr. Maurice Colles, at that time one of the surgeons to the Meath Hospital, Dublin. I was then only 16½ years old. It had not been intended that I should take a degree in Arts; but, finding that my classical education had been fairly good, Mr. Colles advised that I should enter Trinity College, Dublin, which I accordingly did; and, although this entailed the additional labour of doing for four years classical and mathematical work in addition to my medical studies, I undertook it willingly, and have always been glad that I followed the advice given by my master.

Mr. Colles was a truly good man, who devoted both time and money to good and charitable work. He was known as "Colles the Good" to distinguish him from his contemporary "Colles the Great"—he who first correctly described the fracture still known by his name. He was also a strict and most painstaking master. He required his apprentices to attend hospital every day both regularly and punctually; for myself, I do not think that from the day I joined the class to the final day of the examination for my diploma I was ever once absent, unless prevented by illness or during vacation.

From the first I was taught how to bandage, to draw teeth, and to bleed, and soon commenced case-taking; and at the end of my first session had gained such proficiency in these matters and such knowledge of fractures and the treatment of surgical cases of minor importance that Mr. Colles permitted me to go in for the Junior Surgical Prize, open to pupils of not more than two years' standing. I failed on this occasion. All the other candidates were second years men. Next year I gained it easily. I mention these trifles as they serve to contrast the present system, under which clinical teaching is virtually prohibited till the third year of study, with that which existed seventy years ago. But my hopes of entering the profession were well nigh extinguished before my third year of study was completed by my father's unexpected death (January, 1847). He was a very pious man, a clergyman of great ability. He had been Second Wrangler in his year, and subsequently a Fellow of Caius and Gonville College, Cambridge. His income dying with him, I feared lack of means would render it impossible for me to serve out my five years' apprenticeship. As soon as I had completed the three years' curriculum at that time required by the Colleges of Surgeons both of England and Ireland, I begged my master to permit me to present myself for examination for the diploma of the latter college, and, passing it successfully, found myself in July, 1847, a full-blown surgeon at the immature age of 19½. Ever since have I regretted this cutting short of my regular period of study.

Fortunately for me, my relatives enabled me to reside in Dublin during the following winter, so as to complete my university course. During that winter I filled the post of Assistant Demonstrator in the Park Street School of Medicine, which has long since ceased to exist. I also, as an ex-apprentice, was permitted to continue my attendance in the clinical class at the Meath Hospital, while I read steadily for my Medical and Arts degrees. It was not till Shrove Tuesday, 1849, that these were conferred, and at that time I was engaged in practice in the country.

The Dublin School of Medicine had at the time I joined the profession an excellent reputation, specially for the teaching of anatomy. Professor Harrison, in the school of the University of Dublin, and Mr. Power, in that of the College of Surgeons, were anatomists of deservedly high repute, and in the other Dublin schools the teaching of anatomy was good. Indeed, so highly was a knowledge of anatomy esteemed, that a good anatomist, though deficient in other subjects, was but seldom rejected by the examiners for the Diploma of the College of Surgeons, which at that date was the only qualification held by the great majority of the provincial practitioners. The clinical teaching of surgery was in like manner generally good, but that of medicine, in most hospitals, neglected, the attendance of students in the medical wards not being enforced. Of course there were exceptions to this. Graves and Stokes at the Meath Hospital were notable exceptions. The latter distinguished man became later on my kind friend, as he was then my esteemed teacher.

Students dissected and attended hospital from the day they commenced their studies, and now at the end of my life, and after taking an active part as a member of the General Medical Council in formulating first the four year and subsequently the five year scheme now in force, and having watched the working of these systems for years, I am satisfied that the relegation of anatomy to the secondary position it now holds in the five year scheme, and the postponement of hospital attendance till a later period of study are grave mistakes.

There were many eminent men amongst the Dublin surgeons in those days, but their methods would now be looked upon with horror, and, contrasted with bloodless operations of to-day, would justly be considered dreadful.

When anaesthetics were unknown, patients had always to be held, often strapped, down to the table while operations proceeded, and the groans and screams, specially in the case of women and children, were most distressing to hear. Instead of the deliberate care with which operations are now performed, surgeons vied with each other as to which would perform an operation in the shortest time. Much blood was lost. A tourniquet would be applied were a limb to be amputated, but beyond this no attempt would be made to temporarily arrest haemorrhage; the bone being sawn through, then the arteries would be ligatured with silk, and the stump dressed. But the mortality, even after the simplest operations, was great, and sloughing of the integuments quite common; even simple incisions seldom healed by "first intention." I have a vivid recollection of having seen two operations for strangulated hernia performed, I think on the same day, both patients being healthy men; both were dead a few days later. Cutting for the stone, too, was a not uncommon operation, and very frequently fatal.

On one occasion I saw the bladder opened from above the pubes with the view of removing a portion of a gum-elastic catheter which had broken off while being passed by the patient himself and retained in the bladder. That patient died a day or two subsequently. Contrast this with the results of the operation for the enucleation of the prostate gland now so frequently and successfully performed, and the present generation of surgeons will realize the incalculable benefits conferred on them and the whole human race by Lister.

When I was a student infectious cases were admitted into the medical wards of the Meath Hospital. The fever wards, as they were termed, were on the top story; the story below that was allotted for the reception of chronic cases; on the lower story were the accident wards, etc. Cases of typhus fever, of scarlatina, and even of small-pox, were frequently admitted. Wonderful to say, I have no recollection of these diseases being communicated to patients in the surgical wards. Of course, all this has long since been changed.

Then as to the nurses. Medical and surgical alike were virtually untrained, and many of them illiterate. There were no regular night nurses. The nurses were not dressed in uniform in any Dublin hospital, nor even supplied with dresses. There was one to each ward, who was responsible for the patients by night as well as by day. These women were kindhearted and attentive, and I believe that—at least in the Dublin hospitals—the patients were fairly well cared for and contented. In cases where patients were delirious,

or required special watching at night, some respectable old woman of the charwoman class would be engaged to act as night nurse.

During the winter of 1847–8, while acting as demonstrator, as already mentioned, I was appointed to the Fleet Street Dispensary—an institute, supported by voluntary contributions, for the good of the sick poor, who were visited at their own houses, as well as prescribed for at the institution. No member of the staff received any remuneration; on the contrary, each of us had to undertake to find two new subscribers of £1 1s. each, or to pay these subscriptions out of our own pockets. I gladly accepted the appointment on these terms.

The condition of the sick poor in Dublin was at this date and for many years subsequently truly appalling. The famine, due to the failure of the potato crop, had lasted for a year and a half. In all parts of the country there was the greatest distress, and in remote districts absolute starvation; hundreds died of starvation, thousands of "famine fever," as it was termed, typhoid not having been recognized or known, while typhus in its worst form was epidemic; large quantities of Indian meal was imported by the Government, but railways did not then exist in Ireland, and means of transport were wanting. Whole districts were depopulated by famine and fever, thousands emigrated to America, while the towns and cities were crowded by hosts of starving men, women, and children, who thronged the streets begging for food. Some sought employment which could not be obtained, while hospitals and poorhouses were filled to excess. Temporary hospitals, known as the "fever sheds," were erected outside the city, but even these failed to supply sufficient accommodation for the famine-stricken multitude of sick. What the work of the dispensary doctor who laboured amongst this poverty-stricken mass of humanity was, when overtaken by disease, may be imagined but can hardly be described.

The tenement houses in which the poor lived were crowded from attic to cellar. I have known four families each consisting of several individuals, living in one small room, a corner allotted to each family, without a stick of furniture amongst them. One instance I never shall forget. I narrate it to give some idea of the hopelessness of the task devolving on the medical man at this sad period. My district embraced the low-lying slums contiguous to the River Liffey. One day I received a ticket directing me to visit a woman in one of these streets, not of the worst class. Calling at the address given, I was told that the patient lived in the "kitchen," and as there was no communication between the house proper and the so-called kitchen I had to go out of the front door and down into the area to gain entrance. There I found the woman in a veritable cellar, into which neither air or light could enter save through the door. Her case was one of typhus fever, so I gave her an order for admission to the fever hospital. Before leaving I was asked to see another patient in the "back room," which I did. As it was pitch dark there they lit a candle; both these rooms were below the high-water mark of the river, which was but a few yards distant. The outer cellar was bad enough, but the back one was frightful. The walls, which were wholly below the level of the ground, had never been plastered; down them trickled little streams of water, the floor was saturated with damp, the air foul, and on a kind of bed raised a few inches from the floor lay a girl with small-pox. It is not a matter of surprise that the lives of several of the doctors engaged in this practice were lost from diseases contracted in these wretched dens.

Typhoid was not at this time recognized as a distinct and special disease. Typhus was well known and always prevalent in the large towns, but most of the other cases of continued fever were called "gastric," and a great controversy arose as to the nature of the so-called "famine fever" which raged from 1848 to 1855, one of its more prominent features being its tendency to relapse even when the patient seemed to have nearly reached convalescence, and from this it was not infrequently spoken of as "relapsing fever." Much interest was taken on the Continent as to its true nature, and two members of the Academy of Medicine were sent from Paris with introductions to Dr. Stokes to investigate the disease in Dublin. He received them with great courtesy, but as neither of these gentlemen could speak one word of English, I do not think their visit was productive of much good, but it gave rise to an incident for the truth of which I can vouch.

After taking the French physicians to see the patients suffering from this fever in the Meath and other hospitals, Dr. Stokes, at their request, took them to the slums from whence these cases came, and during their investigations they found themselves in a yard, in which numerous pigs were kept, while in what had been a stable-loft the owner and family resided, a number of cows being stalled under them. There was a huge heap of manure in the yard, and the room in which the family lived reeked with the stench from it and the cattle under them, as, indeed, did the whole yard. The Frenchmen were horrified, and, turning to Stokes, said that no doubt in such a place fever cases must abound. Dr. Stokes accordingly asked the owner if there was much fever about him. "No," he replied, and, calling his man, asked him the same question, to be told that he knew of none. The further astonishment of the French doctors was great, and they asked if any explanation could be given for this immunity from fever in such a place. Dr. Stokes, who had a vein of humour in his composition, repeated their question to the owner, who scratched his head, thought for a moment, and replied, "Faith, your honour, I don't know, barring it's the stink keeps it away." The doctors did not carry their investigations further.

As it was impossible for me to continue to reside in Dublin, holding only a post to which no salary was attached, I was obliged to seek an opening in the country, and a few days after my twenty-first birthday was appointed surgeon to a very poor dispensary district in King's County, on the verge of the great bog district.

The village of Geashill, in which I had to reside, was poor indeed; but, for an Irish village, clean. The district had previously been served by a doctor who lived five miles off. I was the first to reside in the district, and there was no house for me to live in, so I had to put up with lodgings in the only house in the village where such could be obtained. This was a long, low, one-storied thatched cottage. There were just four rooms, all mud-floored. The kitchen, in the centre, was the family day room (they slept in a windowless loft over it, reached by a ladder, which I was never permitted to ascend). Off the kitchen to the right was a small room in which were for sale a limited supply of groceries and unlimited supply of whisky. Opening off the kitchen to the left was my sitting-room, with a hard, dry earth floor, the centre covered with matting. It was a fair-sized room, about 16 ft. by 14 ft. Off it was my bedroom; it was only 7 ft. by 14 ft. Its floor, also of earth, was in wet weather very damp and soft. To enter or leave my apartments, I had to go through the kitchen, and this on market days was thronged with customers. Sometimes one of these would open my door and look in, but I was always treated with great respect and courtesy, and I spent the winter months from January 1st, 1849, very contentedly there, poor though the place was. I had plenty to do amongst the poor, and had to read for my M.B. degree, which I was not yet qualified to go up for. I passed the examination for it early in the spring, and later on moved into a house some little distance from the village.

The district was so large I had to keep a horse. I was paid a salary of £80 a year, and got a little private practice, but as there were virtually no resident gentry, and as in consequence of the famine the farmers were very poor, it is not surprising that this only produced £40 that year; indeed, I doubt even had I remained, if I could have made much more in that district. But before the second year had expired I was offered the appointment of medical referee to a well-known insurance company in Dublin. I with

some hesitation accepted that, not with the hope that I should succeed in getting into practice in Dublin, but that I might have the opportunity of improving myself in the knowledge of my profession, being painfully aware of my deficiencies, and I always believe that I owed such success as I subsequently attained to my determination to improve my education in every way, and to the last day of my over fifty years of active practice I tried to learn something in every possible way and from everybody.

An amusing incident occurred to me while at Geashill. Late at night I received a ticket requiring me to visit a woman in labour who resided a mile from my house. I found the patient to be a robust woman, aged about 35, primipara. Os nearly fully dilated, head just entering the brim, after a very tedious first stage. I had never seen the forceps used, and had been taught never to apply them unless I could feel the child's ear. I therefore told the friends that they must have patience, and believing that probably many hours would elapse ere I could deliver her, and not caring to spend the night in a wretched cabin, I said that she was going on well, and that I would come again if sent for. But first discovering that the bladder was greatly distended, I emptied it, using for the purpose a short silver catheter. So home I went and to bed, expecting to be sent for during the night: but I was not, and fearing I should be blamed for leaving her, I rode off to visit her quite early in the morning. My anxiety was soon dispelled, for before I could dismount a woman rushed out, exclaiming, "God bless your honour! Sure, you were no time gone, but the real pains came on and she was well in no time." I went my way rejoicing and forgot all about the case; but about three months after a man rode up to my house, saying he wanted me to go and see his wife, who was a long time in labour. I learned that he lived some miles off, outside my district, but as he offered to pay a fee I went with him. The patient was very young, looked delicate, and was quite exhausted by a very protracted labour, certainly much more than of twenty-four hours' duration. The pelvis was small, and the child's head was impacted in it. I believed the child to be dead, and told them that though I could deliver her the child would be dead. On my saying this there was a great outcry, and one woman exclaimed: "Why, we heard you had a silver horn, that you would point it at the child's head, and that it would follow it." Then it dawned on me that my catheter had been supposed to be an "enchanted horn," so my reputation was as quickly blighted as it had sprung up.

About this time I assisted an old practitioner residing in a neighbouring town in an operation which I can never forget. He deservedly enjoyed the reputation of being a good physician, but of operative surgery he was profoundly ignorant. The patient was an old man, aged about 65, living in a wretched hovel in the middle of a bog. His wife, as old as himself, was the only other occupant of this miserable dwelling, which consisted of just one room. Of course, antiseptics were unknown at that time, and even of water there was but little, and that was taken from a neighbouring bog hole. As for such things as towels, etc., there were none. The case was one of strangulated hernia of several days' standing, and the old man was too exhausted to permit of his removal to hospital, the nearest being many miles distant.

The preliminary arrangements were simple in the extreme; in fact, there were none. The operation was performed as the old man lay in his extremely dirty old bed—nothing on which had known what washing was for many a long day. The old wife, the operator, and myself were the only persons present.

My friend proceeded to operate without delay. I observed from the first that he was very nervous and that his hand trembled sadly. He succeeded, however, in exposing the sac satisfactorily, but on his proceeding to divide the stricture he punctured the sac. With escape of gas, the intestines collapsed, and were easily returned into the abdomen. The wound was then closed, and the patient left to the care of his ignorant old wife. I do not think that the doctor and I exchanged a word as we picked our way across the bog. I know I took it for granted that the patient would soon be a corpse.

A week elapsed ere I was again near the town where the old doctor resided; then I met him in the street and asked about the patient. "Oh," he replied, "he is quite well and walking about!"

I had one private midwifery case during my eighteen months' stay in the country, and it, too, had a ludicrous side.

The patient was a very young lady, and it was her first confinement. Her labour was easy and natural and convalescence rapid, so on her seventh day I allowed her to be up on the sofa, and I called that afternoon to see how she got on. It was a bright, warm, sunny day, but I found my patient wrapped up in blankets, lying before a huge fire, very hot and flushed. Opposite her sat the monthly nurse—a fat, pompous old woman, ignorant, and illiterate, and who had always treated me with little courtesy and, indeed, with hardly veiled contempt; in truth, though I was 22, I did not look 18. On her lap lay the baby, well swathed up. As I was leaving my patient said, "I am so hot, may I have a drink of water?" "Yes, of course," was my reply, whereupon the old nurse rose slowly from her seat, and, facing me, said, "No patient of mine shall taste anything cold till the ninth day," and then majestically sat down again. I was extinguished, and the water was not given!

*(To be continued.)*

# THE ROYAL COMMISSION ON THE POOR LAWS AND RELIEF OF DISTRESS.

## THE MINORITY REPORT.

### WITH SOME OBSERVATIONS ON SCHOOL CLINICS.

DR. E. VIPONT BROWN recently read a paper before the South Manchester Division of the British Medical Association on The Medical Profession: Its Present and Its Future. After discussing the position of the Poor Law medical officer, the condition of out-patient departments, and the advantages and disadvantages of provident dispensaries and sick clubs, he passed on to consider the report of the Poor Law Commission, addressing himself mainly to the recommendations of the Minority Report, upon which he made the following observations:

*The Minority Report.*

That report suggests that the care of the poor should be entrusted to well-salaried whole-time medical officers acting under the chief medical officer of the county or county borough, who would be a very highly paid and responsible official requiring organizing capacity and administrative ability. Under his direction the medical service would comprise three branches, each with a staff of officers. Thus there would be:

1. The *Clinical and Domiciliary Staff*, to do the work now done by the parish doctors, by the physicians to the out-patient departments of hospitals, by the provident dispensary doctors, by the club doctors, and by the sixpenny doctors.

2. The *Institutional Staff*, to look after the various public hospitals, convalescent homes, sanatoriums, and other medical institutions.

3. The *Sanitary Staff*, to do the work now done by the medical officers of health. Each of these branches might equally well lead to the coveted position of chief medical officer of the county or county borough, who would thus be at the head of an efficient staff of medical men, all of whom would be in the position of civil servants, and only dismissible with the consent of the central health authority. Indeed, this excellent scheme suggests a Minister of Health with a seat in the Cabinet.

The whole idea underlying this scheme set forth in the Minority Report is radically different from that underlying our present methods of treating the poor. Instead of making a "lightning diagnosis" and hurrying our patients away well satisfied with a "bottle," it will be the

duty of the medical official to find out the causes of the patient's ill-health, and to set machinery in work that shall remedy these causes. Thus not only the patient, but his whole environment will be brought under treatment.

Indeed, the ideal which the Minority Report proposes to set before those whose duty it will be to treat the poor, is to keep the whole community in as efficient a state of physical health as is possible. They consider, and I think rightly so, that the health of the citizens is as much a national concern as is their education.

Curiously enough, the British Medical Journal dismisses this scheme of the Minority as a "fairy palace," and a "pretty picture," and prefers that of the Majority, which, at its best, could only prove a degraded and degrading servitude.

Now this subject is one of enormous importance to us as a profession. Great changes are already in progress which, in the near future, must vitally affect our interests. Coming events cast their shadows before, and there are much more substantial things than shadows to warn us that we cannot long remain where we are. Therefore, it is absurd to look no further than the end of one's nose. The wise man will look far ahead and steer for the harbour which appears to him the most desirable. At the present time there are two harbours in sight—the one recommended by the Majority, and the other by the Minority of the Royal Commission. To put it in a nutshell, the Majority points towards the beatification of the Provident Dispensaries, and our subjugation to them; the Minority towards the gradual extension of the public health service, at least in so far as the treatment of the poor is concerned. And between these two ideals we must choose. Let us not dismiss the recommendations of the Minority off-hand, as the British Medical Journal seems to do, merely because those who have worked out the scheme have set before them a high ideal. It surely does not follow that the scheme set forth in the Majority Report is more practical because their ideal is a low one! Unconsciously the profession has drifted already some considerable way in the direction pointed out by the Minority Report. One tenth of our profession (seeing that they receive fixed stipends from public funds) are, in a sense, already civil servants (4,000 out of 40,000). But it is never safe to drift, and what I want is, that we should recognize this as our ultimate goal, and that we should consciously steer towards it.

One writer to the British Medical Journal has objected (and probably not without reason) that those who are already civil servants have not found the State an ideal employer. But if the profession were united in its aims and objects, and its members no longer engaged in trying to cut each other's throats, we should be quite strong enough to secure from the State adequate remuneration and favourable conditions.

Then, again, the British Medical Journal is much concerned to know whether the Minority scheme will or will not lead to free medical services for the poor. But this is surely not a matter that need concern us as a profession. All that we have to ensure is that the work shall be well done, and well paid for. The duty of recovering the money from those who can afford to pay would happily devolve upon the special officers of the local authorities appointed for that purpose, and not upon us. For all this elaborate provision had been made in the Minority Report.

*School Clinics.*

One of the most striking indications that changes are likely to take place which will materially affect our profession is the law for the *medical inspection of school children*. This is logically certain to be followed by *school clinics*, for it would be futile in the extreme to examine children and not to remedy the defects revealed by examination. Thus there will be created an enormous amount of fresh work, and possibly an entirely new order of medical practitioners.

After giving some extracts from the report on the treatment of school children at Bradford, he continued as follows:

Judging by the report of the school medical officer, it would be difficult to overestimate the value of the work done by the school clinic at Bradford; and yet, at the Representative Meeting of the British Medical Association, held at Belfast, all such clinics were deliberately condemned as illegitimate, because not run by general practitioners! Rarely have I felt more humiliated than when I listened to the discussion on school clinics at that meeting of Representatives. The main question seemed to be, "How much plunder can be got out of them for the general practitioner?" The welfare of the children, or even of the profession as a whole, seemed scarcely to be given a thought.

Now, it is not as though the general practitioner stood to lose anything worth talking about. Statistics prove that most of the work which these clinics will do is new work that has never been done before, and what little has been done has been done inefficiently and done for nothing in the out-patient departments of our hospitals. The difference is that in such clinics as that in Bradford it is well done and well paid for. Surely we should not condemn this beneficent change merely because the work is done and the payment received by whole-time medical officers, and not by general practitioners. By the passing of such resolutions we do not condemn the system, but rather we condemn ourselves as not only selfish but short-sighted in our selfishness, and if we persist in our perversity we shall be ignored, as we were over the Midwives Bill, and things will shape their course irrespective of our advice or our interests.

Now, as a matter of fact, school clinics worked by whole-time medical officers are not merely legitimate; they are the ideal which we ought to be striving after. It is inconceivable that school clinics run by general practitioners could work as well. In the first place, an enormous amount of jealousy and friction would be certain to arise if those by whom the children are treated were in general practice. Is it likely that I could acquiesce with equanimity in my little patients being examined or treated by a neighbouring practitioner in the presence of their parents? Perchance my neighbour might discover, or pretend to discover, some defect that I had overlooked; or, even apart from that, the parents might have the bad taste to think him pleasanter or cleverer than myself! The seriousness of this danger can be easily realized when we study the makeshifts that have been suggested to obviate it. Thus the Representative Meeting at Sheffield passed a resolution that the children should never be treated by the same man who examined them. But if the school examiner is never to be allowed to treat the ailments which he discovers, you condemn him to a life the dull monotony of which would soon become intolerable. Then, again, our own Manchester Divisions suggested that the school medical officer must never be one practising in the neighbourhood. But what busy practitioner has time to go to a distant school to examine the children? The whole difficulty is at once got over by the appointment of whole-time medical officers. Such men soon become specialists in their work, and in time a great national organization would be established, worked on a uniform system to the enormous advantage of all concerned.

As a matter of fact, if the system of medical *inspection* is to be by means of whole-time officers—and outside London this is almost universally the case—then necessarily I believe the staffing of school clinics must be by similar officers. We general practitioners originally said that *we* would do the *inspecting* as part-time officers. But we have now shifted our position and say that though inspection is best done by whole-time officers we must do any required treatment, and so far as I know, on no other grounds than that we want the work and the pay for it—a perfectly legitimate wish. But it seems to me absurd to expect an education authority in a large city to appoint a staff of half a dozen full-time officers for medical inspection, and then, when the question of treatment comes up, to say to them, "Now you men must go on with your inspecting. We are going to appoint a dozen general practitioners to give us a few hours a week each to do the treatment." Surely they ought rather to say, "We will divide the treatment among you, and, if necessary, add another two or three whole-time men to our staff who shall take their share in the common work."

Moreover, at the clinic school children are being *examined* daily by the ordinary staff—for example, special cases requiring further examination which have been met with at the routine inspection: candidates for the special

schools, the open-air school, etc, and children presented by the attendance officers. So that to introduce part-time men from outside for the purposes of treatment not only seems uncalled for but would greatly hamper organization and efficiency. How complicated the matter becomes you will see when I remind you that the whole-time inspector is fully entitled to examine more thoroughly all cases of deafness at the clinic, and should he find a running ear or an ear full of wax, he would apparently have to hand over the case to the general practitioner attending the treatment part of the clinic. Similarly, vision examination, including retinoscopy, is part of inspection; but how can you separate the examination from the prescription of spectacles?

From whatever standpoint viewed it seems clear that inspection and treatment must go hand in hand. It is difficult to think of anything of more importance at the present juncture than that the medical care and oversight of the children of our country should be in the hands of the best men and women our profession can produce. To condemn a man trained as a medical man has been, and with all his varied experience, to a life of inspection merely, and that, too, of a very monotonous kind, is quite unthinkable. If we are in earnest on the question of the physical condition of our children, we shall then endeavour to make the school medical service the magnificent instrument it ought to be, and is, indeed, capable of becoming. To do this, however, it will be necessary to weld together into one harmonious whole the carrying out of all the duties comprised under the heading of "school hygiene," including the detailed work of medical inspection of the children and the treatment of the defects and diseases found.

But you will ask me, and not without reason, where is this process of socialization of the medical profession to cease? Can we logically restrict it to those medical men who treat the poor, and the children in our national schools? No, I do not think that we can. But we need not trouble ourselves about that. The general medical practitioner will certainly last out our time, and probably that of our children's children. When education was nationalized, even though education was made free to all and sundry, Eton and Harrow did not cease to be. We all of us choose to pay for the education of our children, and most of us pay very heavily. This may be snobbishness, but it is snobbishness of which we are all alike guilty, and, judging others by ourselves, we may feel quite sure that so long as there are considerable inequalities in the distribution of wealth, so long will there be those who will choose to pay a general practitioner rather than accept the services of a State official. But of this I am equally certain, that in the near future the proportion of general practitioners and medical civil servants will be reversed; but the change will take place gradually, and if we have the foresight to direct its course instead of fighting against it, the change will prove an unmitigated advantage both to the profession and to the public.

*Conclusions.*

In conclusion, let me make a few practical suggestions for our immediate guidance.

1. It should be our endeavour to improve contract practice, as it is known to-day, off the face of the earth. There is absolutely nothing to be said in its favour; it has proved, and is still proving, disastrous for the public and for the profession.

2. In season and out of season we should advocate the scheme of the Minority of the Poor Law Commissioners, and condemn that of the Majority, which would indefinitely extend contract practice and perpetuate its evils.

3. We should strongly advocate whole-time appointments for medical officers of health, and for those who do the work of our education authorities. Men cannot serve God and Mammon. How can a medical officer of health condemn the insanitary property of his best patients? No man can afford to quarrel with his bread-and-butter. So wherever districts are too small or too poor to support whole-time officers, they should be grouped together for the purpose of so doing. And, as I have already shown, there are equally strong reasons why those medical men who serve the education departments should be whole-time officers also.

4. We should do our utmost to improve the position of those who already hold whole-time appointments, by endeavouring to increase alike their stipend and their security of tenure. It should be impossible for a man to be arbitrarily dismissed by a local authority, as is often done, because he does his work too well to please his employers; and, to secure this end, it should be made illegal for a local authority to dismiss any of its medical officers without the consent of the Central Education or Health Authority.

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THE

# COMPOSITION OF SOME PROPRIETARY FOOD PREPARATIONS.

## V.—COMBINATIONS OF MALT EXTRACT.

EXTRACT of malt is largely employed as a vehicle for the administration of other substances, and the combinations so formed must in some cases be classed as medicines and in others as foods, while certain of these preparations are on the border line and might be put in either class with equal propriety. In all such compounds, however, the malt extract is not used merely as a vehicle, but is of some importance as supplying a large proportion of soluble carbohydrates and an appreciable amount of soluble protein. Probably the substance most frequently ordered in combination with malt extract is cod-liver oil, and a very large number of different makes is to be found on the market; with nearly all of these, however, no information is given as to the proportion of cod-liver oil present—obviously a matter of much importance. We give here the results of the analysis of a few selected out of the many preparations of cod-liver oil and malt extract which are sold; those dealt with include three in which a definite percentage of cod-liver oil is stated to be present, and in one of these there is a very wide discrepancy between the amount so stated and the amount actually found. Several other compounds of which malt extract is the basis have also been analysed, and the results are given below. Malt extract itself having been shown in a previous report of this series to be very variable, especially in regard to diastatic activity, the digestive power of the extract contained in the articles in question was ascertained, except in the case of the dry preparations, or where the malt extract was present in amount too small to be of importance. In each case the characters of the fat or oil which was extracted were consistent with its being of the nature claimed, whether cod-liver oil, olive oil, milk fat, beef marrow fat, etc., but the identity of the fat or oil in each case was not determined.

### VIROL.

This preparation is sold by Virol, Limited, London, E.C. The jar sold at 1s. was found to contain nearly 2 fluid ounces. It is described on the jar as a preparation of bone marrow. The directions are that Virol should be taken between or immediately after meals, adults commencing with a teaspoonful and increasing to a dessert-spoonful, and children commencing with an eggspoonful and increasing to a teaspoonful.

Analysis showed it to contain:

| | |
|---|---|
| Fat ... ... ... ... | 12.3 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 59.0 ,, |
| Protein ... ... ... | 2.8 ,, |
| Ash ... ... ... ... | 1.6 ,, |
| Water ... ... ... ... | 21.1 ,, |

(The portion soluble in water possessed no diastatic power.)

### MIOL.

This substance is prepared by the Miol Manufacturing Co., Limited, London, S.E. A bottle costing 1s. 1½d. contained 3½ fluid ounces. Miol is described as "a preparation of the richest diastatic malt, the finest product of the olive, free phosphorus, the active principle of certain seaweeds, and other nutritious substances, also the necessary properties for forming bone and muscle." The dose is given as one teaspoonful for children and two teaspoonfuls for adults, to be taken three times a day within an hour after food.

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 22.4 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 41.3 ,, |
| Protein ... ... ... | 2.3 ,, |
| Ash ... ... ... ... | 0.8 ,, |
| Water ... ... ... ... | 16.7 ,, |
| Diastatic power of water-soluble portion ... ... ... | 2 |

Iodine was present in combination in small quantity. No free phosphorus could be detected; the ash contained some phosphate, which is always to be found in the ash of malt extract.

### CREMALTO.

This is prepared by the Maltico Foods, Limited, Portsmouth. A bottle sold at 1s. contained 6½ fluid ounces. Cremalto is described as "a scientific combination of pure sterilized Devonshire cream." The dose is given as one or two teaspoonfuls on rising and after each meal. Analysis showed it to contain:

| | |
|---|---|
| Fat ... ... ... ... | 11.7 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 56.3 ,, |
| Protein... ... ... ... | 4.1 ,, |
| Ash ... ... ... ... | 1.3 ,, |
| Water ... ... ... ... | 26.7 ,, |
| Diastatic power of water-soluble portion ... ... ... | 6 |

(A trace of boric acid was present.)

### MALTICO.

This is prepared by the same company. A bottle sold at 1s. 6d. contained 6¼ oz. This preparation is in the form of a powder, and is described as "a perfect infant food." The quantity to be given at one time is stated to be from one to six teaspoonfuls, according to age. Analysis showed it to contain:

| | |
|---|---|
| Fat ... ... ... ... | 3.9 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 66.5 ,, |
| Protein... ... ... ... | 16.8 ,, |
| Ash ... ... ... ... | 4.6 ,, |
| Water ... ... ... ... | 3.6 ,, |

(No starch was present.)

### OVALTINE.

A preparation with this name is sold by A. Wander, Berne and London, the price of a tin containing about 9 oz. being 1s. 9d. It is a granular powder, and is described as being "composed of Malt Extract, Fresh Swiss Cow's Milk, Fresh Eggs, and Converted Cocoa, and containing Active Lecithin." One or two teaspoonfuls are directed to be mixed with milk or milk and water to form a cupful of beverage.

Analysis showed it to contain:

| | |
|---|---|
| Fat ... ... ... ... | 12.3 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 60.0 ,, |
| Nitrogenous substances, calculated as protein ... ... | 13.4 ,, |
| Ash ... ... ... ... | 3.5 ,, |
| Water ... ... ... ... | 1.5 ,, |

A very small quantity of free lecithin was found, and the presence of egg substance was also indicated by a small amount of sulphur in organic combination.

### BYNOL.

This preparation, made by Allen and Hanburys, London, and called also "Allenburys" Malt and Oil, is sold at the price of 2s. for a bottle containing 9½ fluid ounces. The dose is given as one teaspoonful, gradually increased to one tablespoonful, to be taken three times a day with or immediately after food.

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 12.9 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 52.2 ,, |
| Protein... ... ... ... | 4.6 ,, |
| Diastatic power of the extract present ... ... ... | 22 |

### BYNIN EMULSION OF COD LIVER OIL WITH HYPOPHOSPHITES.

This emulsion, made by the same firm, is sold at the rate of 2s. 6d. for a bottle containing 10¼ fluid ounces. The dose is stated to be two to four teaspoonfuls for children, and one to two tablespoonfuls for adults, three times a day after meals.

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 34.6 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 9.0 ,, |
| Protein... ... ... ... | 1.2 ,, |

(Hypophosphite was present in very small quantity.

### TROMMER'S MALT EXTRACT AND COD LIVER OIL.

This compound, prepared by the Trommer Company, Limited, is sold at the price of 2s. 6d. for a bottle containing 9¾ fluid ounces. The dose is stated to be for adults a tablespoonful, for children a teaspoonful or less, according to age.

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 29.9 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 41.4 ,, |
| Protein ... ... ... | 2.4 ,, |
| Diastatic power of the extract present ... ... ... | 55 |

### STANDARD MALT EXTRACT AND COD LIVER OIL.

This is prepared by the Standard Malt Extract Company, Liverpool and London. A bottle containing 4½ fluid ounces costs 1s. 3d. The dose for an adult is stated to be one teaspoonful twice a day, increasing to two teaspoonfuls: for children, half the adult dose. On the outer package it is stated that "Standard Malt Extract and Cod Liver Oil contains 25 per cent. of the finest Norwegian Cod Liver Oil."

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 4.1 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 64 0 ,, |
| Protein ... ... ... | 5.6 ,, |
| Diastatic power of the extract present ... ... ... | 74 |

### DIAMALT WITH COD LIVER OIL.

This is prepared by the British Diamalt Co., London, S.E. A bottle costing 1s. 6d. contained 11 fluid ounces. The dose was given as a teaspoonful to a dessertspoonful three times a day. The preparation was described on the label as "containing 15 per cent. of Cod Liver Oil."

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 16.6 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 51.0 ,, |
| Protein ... ... ... | 5.1 ,, |
| Diastatic power of the extract present ... ... ... | 592 |

### MALTINE AND COD LIVER OIL.

This preparation is sold by the Maltine Manufacturing Co., Ltd., London, W.C., at the price of 2s. for a bottle containing 8¼ fluid ounces. The dose, for adults, is stated to be from a dessertspoonful to a tablespoonful three times a day; children in proportion. It is stated on the label that "Maltine with Cod Liver Oil contains 30 per cent. by volume of Cod Liver Oil."

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 22.7 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 41.4 ,, |
| Protein ... ... ... | 3.8 ,, |
| Diastatic power of the extract present ... ... ... | 284 |

(22.7 per cent. of oil corresponds to 30.6 per cent. by volume.)

### KEPLER SOLUTION OF COD LIVER OIL IN MALT EXTRACT.

This solution, prepared by Burroughs, Wellcome, and Co., London, E.C., is sold at the price of 2s. for a bottle containing 9 fluid ounces. The dose is given as a teaspoonful, increasing to two dessertspoonfuls or more.

Analysis showed it to contain:

| | |
|---|---|
| Oil ... ... ... ... | 17.4 per cent. |
| Reducing sugars, calculated as maltose ... ... ... | 42.5 ,, |
| Protein... ... ... ... | 3.4 ,, |
| Diastatic power of the extract present ... ... ... | 3 |

## THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

### ASYLUM OFFICERS' SUPERANNUATION ACT.

To commemorate the passing of the Asylum Officers' Superannuation Act, the President and Council of the Medico-Psychological Association dined together at the Gaiety Restaurant, London, on December 20th, 1909, under the presidency of Professor W. BEVAN-LEWIS, M.Sc., Medical Superintendent of the West Riding Asylum, Wakefield. A large number of superintendents and medical officers of asylums affected by the new Pensions Act in each division of the United Kingdom were present, and in addition many other members of the Association, who, though not affected by the new Act, desired to show their satisfaction in the fulfilment of a long-cherished aim of the Association with the object of securing the best procurable staff for the treatment of the insane.

The loyal toasts having been duly honoured, the PRESIDENT proposed the toast of the evening—namely, "The Passing of the Superannuation Act, and those who contrived it." He said their happiness that evening was based upon the material benefits derived from the Superannuation Act. All seemed satisfied with the measure as it stood, and the minds of those present were centred upon those who had realized the inadequate rewards meted out to a large section of the nursing community throughout the country. Nothing approached nearer to genius than a realization of the disabilities of our fellow men and the translation of that feeling into action, especially when the originating and impelling motives were disinterested and unselfish. There was no more pathetic sight than that of the rudderless mind, tossed hither and thither by the storms of conflicting passion, bereft of that one light, the light of reason, which Nature had given to be a guide. All asylum workers, from the topmost to the bottom rung of the ladder, were banded together with one fixed and determined purpose—the cure or amelioration of one of the saddest and one of the most terrible scourges which fell to the lot of man. There was no nobler avocation than that of ministering to the mind diseased, and it required the noblest of qualities, those which went to make the first-class nurse. To Dr. Shuttleworth he turned first, with every expression of heartfelt thanks, which were felt by every member of the Association. He had worked most assiduously and successfully to establish what had now been accomplished. To Sir William Collins was due not only a very great share in the legislative success, but also the establishment of the pathological department at Claybury, from which had emanated such great and brilliant work under the directorship of Dr. Mott. In the carrying of the present great measure Sir William Collins and Lord Monk Bretton had steered the barque, in spite of the searchlights which were always turned on such a measure, with infinite tact and resource. Others also had had no small share in the work, and he wondered whether the Archbishop of Canterbury had any realization of the warmth which he had caused in the breasts of those whose defence he so stoutly maintained. Nor must it be forgotten that a great deal of work had been done in connexion with the measure by the Asylum Workers' Association and the Medico-Psychological Association; he would also specially mention the name of Mr. Morgans.

Sir WILLIAM COLLINS, M.P., in responding to the toast, said he did so with mingled feelings of diffidence and gratefulness. Even in these days of constitutional usurpation, he thought he ought not to precede the noble lord of Monk Bretton. The establishment of the pathological laboratory at Claybury showed that a great body like the London County Council was not antiscientific. Sir William then indulged in an interesting historical retrospect, and urged that the practice of psychiatry required the highest qualities of heart and head, qualities which could transfigure and transform their lives. He concluded by a reference to some of the interesting incidents which occurred during the passage of the measure through both Houses.

Lord MONK BRETTON cordially thanked the President for the kind words he had chosen to use about him in relation to the passing of the Act. But seeing that some members of the Association had been labouring towards that object for the last twenty years, he felt that he had no right to accept the praise. He could only say that he was proud of the little that he had done in so good a cause. The asylum worker was engaged in a very noble and important profession, and one which was also very trying. In its lower ranks it was comparable to the prison service, or to the police. But prison warders were the protegés of the Government, and the Government had a very long purse. The police were under the local authority, and the policeman was a favourite of the ratepayer. But the asylum worker was shut in within the limits of his own asylum, and the public, while knowing but little of it, considered him a great nuisance from the ratepayer's point of view. The asylum service ought to be made a Government institution.

Dr. SHUTTLEWORTH also responded. He declared that the present happy gathering and its object had been a matter of the greatest gratification to himself, and he had been much touched by the way in which his share in the work had been referred to. But others, and particularly Dr. Hayes Newington, who had steadily advocated and worked towards the same object for twenty years, had had no small share in the great result. He also mentioned with high appreciation the work of such men as Mr. Morgans. His Majesty's Commissioners in Lunacy had also done very much to further the progress of the measure. He fully endorsed all that had been said concerning the work of Sir William Collins and Lord Monk Bretton, and declared that any attraction which the office of member of Parliament might have had for him in the past was obliterated by the constant attendance he had been giving in connexion with the measure, and the insight which it gave him into the legislative machinery.

On the proposition of Dr. PERCY SMITH it was resolved to send a telegram to the Lord Chancellor in the following words:

> The President, Council, and members of the Medico-Psychological Association, assembled at the Gaiety Restaurant to celebrate the passing of the Asylum Officers' Superannuation Act, desire respectfully to convey their profound appreciation and warm thanks for the sympathy and support which your lordship gave to the bill.

Dr. G. H. SAVAGE proposed "The Visitors" in a happy speech, and it was responded to by Dr. NEEDHAM.

Dr. BOND, the General Secretary of the Association, announced that he had received a number of letters of congratulation, including one from the Archbishop of Canterbury.

Dr. ROBERT JONES proposed the toast of "The Chairman," paying a high tribute to his scientific attainments, his skill and ability, and, with it all, his modesty; for Professor Bevan-Lewis was the author of the best textbook on mental diseases in the English language.

The PRESIDENT, in reply, said he regarded the present as one of the most auspicious events in the history of the Association. The present Act might be regarded as a model one, though possibly at some future time modifications would be made.

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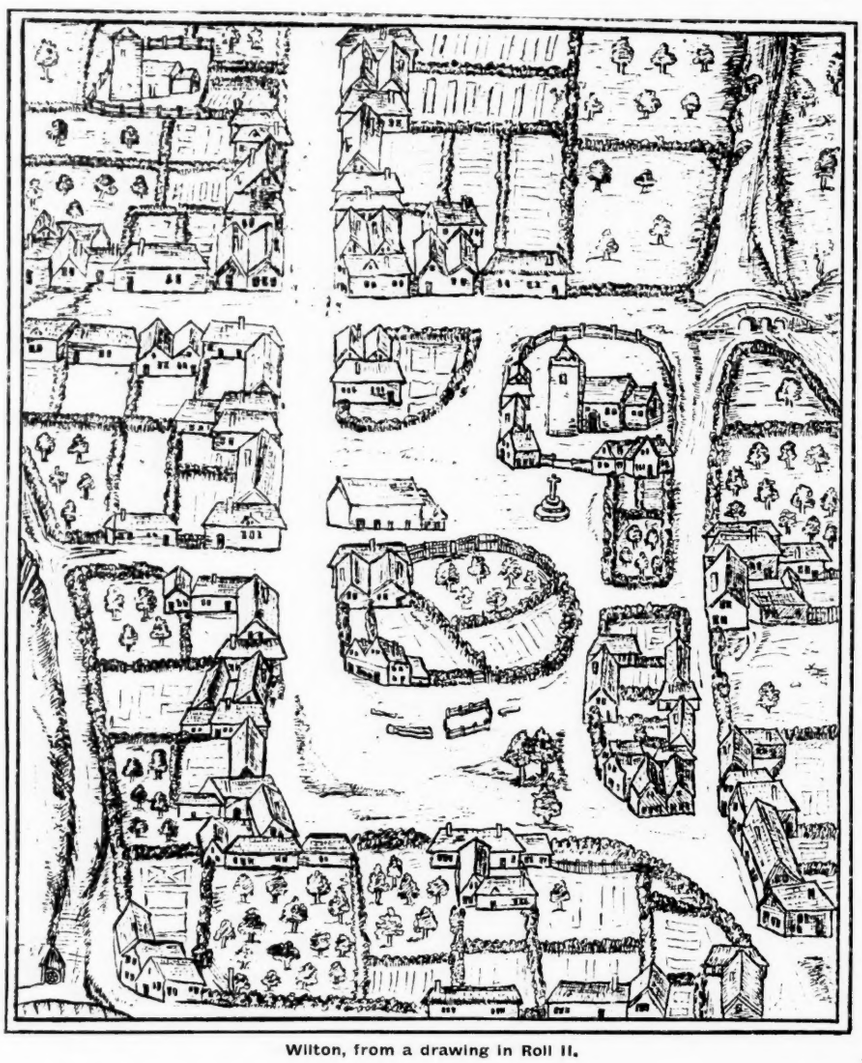
THE usual monthly meeting of the executive committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on December 17th, 1909, Dr. de Havilland Hall in the chair. The accounts presented showed that the business of the society during the month of November had been exceptionally good. The number of weeks of sickness claims was less than the expectation, and well under the number usually experienced in this month. During the month there had been a greater number of entrants than in any previous November during the society's working, and, in addition, an unusually large number of members increased the amount of the sickness benefit secured by them when they joined the society. The rules now allow six guineas a week, and nearly three hundred of the members have now secured this maximum amount. Two of the members who have been totally incapacitated for years died during the month; but there is reason to fear that their places on the chronic list have been filled up. This list is still growing, and will probably increase for some years to come. There are now over forty members who will in all probability be unable ever to resume professional work. They for the most part receive an annuity of 104 guineas a year. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

# Nova et Vetera.

## TUDOR ENGLAND.

THE Earl of Pembroke and Montgomery has fulfilled his obligation as a member of the Roxburghe Club by presenting to it, in two quarto volumes beautifully printed at the Oxford University Press, a transcript[1] of three vellum rolls found in a plain wooden box which came to light some five years ago when a quantity of lumber, including old pieces of armour, was turned out of the riding school at Wilton, near Salisbury. The rolls proved to be a survey made early in the reign of Elizabeth of the lands of William, first Earl of Pembroke of the present creation, so far as his English estates were concerned. "I am fortunate enough," Lord Pembroke writes in the preface, "in having as a neighbour and friend Mr. Charles R. Straton, who was kind enough to examine the parchments and was able to expand the contracted Latin in which the results of the survey is written." The survey does not include the extensive property the Earl held in Wales, although Mr. Straton states that there is reason to believe that a survey of part of the Welsh property still exists. Were it discovered it would, Mr. Straton believes, allow a valuable comparison to be made "between the survivals of Celtic tribal customs found in South Wales and the various modifications of them in the manors of what had been West Wales and what had been Wessex."



Wilton, from a drawing in Roll II.

It would, perhaps, be presumptuous in us to praise the manner in which Mr. Straton has done his work, but its excellence appears to be generally recognized by experts, and even a non-expert may perceive, by comparing the facsimile of some sheets of the roll reproduced in collotype in these volumes with the printed transcript, how laborious the task must have been. It has, as we happen to know, occupied for several years much of the leisure of a life very full of the public work which has made Mr. Straton's name so well known to members of the British Medical Association.

The frontispiece to the second volume is a reproduction of a pen-and-ink drawing at the beginning of each roll representing the Earl of Pembroke dressed in a fur-trimmed robe, and seated in a high-backed curule chair, in the act of handing to Charles Vaughan and Robert Grove their commission to make the survey; behind him stands his son Henry, who was afterwards the father of that William, third Earl Pembroke, who has been erroneously supposed by some to be the Mr. W. H. to whom Thomas Thorpe dedicated the first edition of Shakespeare's Sonnets. The first earl was given by Edward VI the rich wardship of the second Earl of Southampton, who was the father of the third earl, to whom Shakespeare dedicated both *Venus and Adonis* and *Lucrece*.

The volumes also contain collotype reproductions of drawings of Wilton House, of a plan of the lands of one tenant at Stoford, and of birds' eye views of Wilton and of Paignton; the sketch of Wilton is reproduced to illustrate this article. In the text are reproduced some ruder drawings of churches and a few other buildings in various places.

The Earl of Pembroke for whom the survey was made was a Welshman, grandson of an Earl of Pembroke of whom Owen wrote: "Sithence the Conquest of the Normans this was the first man by name and descent a Brittaine that ever was advanced to title of honour." He was on the wrong side "in that troublesome tyme of the civil warres was taken at Banburie Field Anno Domini 1469 . . . and shortlie put to death." The fortunes of the family were partly restored by his son Richard, who married an heiress, the daughter of Sir Matthew Cradock of Swansea, and raised to a great height by their son William. He married one of the daughters of Sir Thomas Parr of Kendall; another daughter was Catherine, the last wife of Henry VIII, and when that monarch died in 1547, Sir William Herbert, as he then was, became a guardian and joint Governor of Edward VI. He was made a Knight of the Garter in 1548, appointed Lord President of the Marches of Wales in 1549, and Earl of Pembroke in 1551. Shortly afterwards, when Somerset and Sir Thomas Arundel were executed, the Earl received large grants from their Wiltshire estates. He very nearly came to grief by siding at first with the party of Lady Jane Grey, but adroitly recovered himself, was appointed on behalf of the nation to give Queen Mary

[1] *Survey of the Lands of William, First Earl of Pembroke.* With an introduction by the transcriber, Charles R. Straton, F.R.C.S., and a preface by the Earl of Pembroke and Montgomery. Oxford: Privately printed for presentation to the members of the Roxburghe Club. 1909. (Two vols. 4to, pp. xcix + 624, with 13 plates in collotype.)

away when she married Philip, and was described by the Spanish Ambassador as then the most powerful personage in England. He was one of the four Privy Councillors who in 1558 brought Elizabeth from Hatfield to London to be Queen, and, though he was sometimes in difficulties, retained her favour until he died in 1570, bequeathing to her his best jewel, named the Great Ballace. Though commissioners were appointed by the Earl to make the survey in 1562, when he had reached the height of his prosperity, and had attained the age of 65, they do not seem to have got to work until 1566, when the Earl had already, two years before, been so ill that his life was despaired of—"the Earl of Pembroke lies at God's mercy." It was the practice, Mr. Straton tells us, in his interesting Introduction, of all great landed proprietors at this date to have an accurate survey of their manors prepared, setting out in detail the rights of the lord, with the fines, rentals, and services to which he was entitled, and the various jurisdictions he possessed within his seignory. There were good reasons impelling the lord to make such a survey. Many of them, like Pembroke, had not long held possession. Owing to a variety of causes, of which the expropriation of monasteries and monastic estates was the most recent and probably most considerable, there had been very great changes in ownership, and there were no doubt many cases on every estate in which title was ill-defined and boundaries uncertain. That matters of this kind should be settled was important to the lord, and of hardly less consequence to those who held under him.

The Commissioners, Charles Vaughan and Robert Grove, went about their work very systematically, recording, in addition to particulars as to the situation and extent of each holding and of the buildings on it, the rent in money and kind, and the services, if any, to be rendered by the tenant, so that the roll was tantamount to a valuation of the whole seignory. They prefixed to the section dealing with each manor a paragraph setting out the date of the inquisition, and that they had conducted it

tam per inspeccionem Indenturarum copiarum et aliorum scriptorum quam per examinacionem tenentium subscriptorum et titulatorum. Qui supra sacramentum suum dicunt et presentant ut sequenter patet.

The later part of Mr. Straton's Introduction is, in fact, a short account of the organization of the rural community in the sixteenth century, the facts being illustrated by constant references to statements in the survey. In the essential matter of the administration of justice the system gives the impression of great complication, containing as it did many survivals from an earlier state of society, but it probably worked well and speedily; apparently it must also have had the great merit of being cheap. There are many interesting sidelights on the life of the time, but we must be content to pick out a few matters here and there which have more or less bearing on the public health.

At this time, when the minds of many are turned to the consideration of the Poor Law, reference may be made to the Church House, *domus ecclesiastica*, mentioned in the survey of many parishes. It was used for the observance of the Church Ale, or Scotale, which, according to the following quotation which Mr. Straton makes from Aubrey's *Natural History of Wiltshire*, was in a sense the precursor of poor rates.

There were no rates for the poor in my grandfather's time, but the Church Ale of Whitsuntide did the business. In every parish is (or was) a Churchhouse to which belonged spits, crocks and utensils for dressing provisions. Here the housekeepers met and were merry, and gave their charity. The young people were there too, and had dancing, bowling, shooting at butts, etc., the ancients sitting gravely by and looking on. All things were civil and without scandal.

The survey contains references to other provision for the poor and infirm. The hospital or priory of St. Giles at Wilton was founded for the relief of the sick poor by Adelicia, the second wife of Henry I; it was used as a leper hospital, and many of the old inhabitants, it is said, believed that they had seen "the leprosy queen" walk in the dark part of the road where it formerly stood; it was removed to another site in 1830, and, like a good many other old leper houses, is now an almshouse. The hospital of St. Mary Magdalen in the same town has also been moved, and it, too, is now an almshouse; the survey speaks of both brothers and sisters of this hospital, and the sisters apparently earned a livelihood by selling horse loaves; the practice of feeding horses on bread seems to have entirely disappeared from this country, but may still be witnessed in parts of Germany, and must have been a convenient way of carrying horse-feed on a journey. The hospital of St. John was just outside Wilton, and afforded provisions and rest to wayfarers. At Shaftesbury the commissioners found another institution of a similar kind, a *domus eleemosinaria vocata a Magdalen;* it comprised a well-built house with a tiled roof, a chapel, a garden, and some old houses in decay. They considered it *apta et necessaria pro schola inde fienda* and said that they would speak to the lord about it; whether anything came of the suggestion we are not told, but since the dissolution of the monasteries the want of schools had become serious, and Mr. Straton calls attention to the fact that, with the exception of Eton and Winchester, named as holding certain lands, there is no mention in the survey of any school. Apparently the royal munificence which led to the foundation of many grammar schools under Edward VI had not extended to this part of England.

With regard to sanitation, the first thing to be noticed is that every house, or practically every house, however small, had a curtilage or enclosed piece of land about it, so that it stood more or less free to the winds of heaven, and had space for harmless disposal of refuse. This appears not only from the text of the survey, but from some of the drawings by which it was illustrated. It either surrounded the house more or less completely or was a "backside" behind it. In the sketch of Wilton the houses shown seem to be, for the most part, of one story; some have an attic story with windows in the roof, and only one or two have two full stories; the windows were in every case small, and no house, with one possible exception, seems to have had more than one chimney. The curtilage was divided usually into a garden and orchard. The garden was for vegetables, those usually grown, according to Mr. Straton, being cabbages, turnips, carrots, leeks, and onions. Peas and beans were field crops, and probably in England, as in France, filled to some extent the place now taken by potatoes. Beasts were killed and salted at Martinmas for winter consumption, apparently because the method of cultivation by the "three field system" did not provide root crops for winter feed. The menace of scurvy was therefore very real, and accounts perhaps for the importance of the "leke-beds" mentioned in the survey. But the lord also had to guard against it, and this was no doubt a reason for requiring fresh food—fish, pigeons, and chickens—to be paid as rents in kind.

Fish ponds were important sources of food and revenue. It is recorded that at Wilton House five ponds, planted with fruit trees on their banks, had recently been made by the lord, and at Shaftesbury there were several fish ponds. One of the entries may be quoted as a sample of the short cut the commissioners took when confronted by difficulties of Latin terminology:

Est ibidem una pastura vocata Wyncombe parke, ubi construitur una Warrenna pro Cuniculis et una Logea pro Warrennario jacendo et sunt in eadem pastura ij stagna pro piscibus viz. Carpes & Tenches.

From which entry it appears that rabbits also supplied fresh meat.

Houses had to be kept in repair sometimes by the tenant, sometimes by the lord. In boroughs the officer, if a tenement fell into decay, set up a stake against the door, and if the tenant made default in repairing his house for one year after the stake was set up, his lands within the borough escheated to the lord. Thus in a memorandum (in English) attached to the entries as to Wilton with which the second roll begins we read:

Item the Custome of the foreseid Borough is that yf the Rent of any Burgage helde be unpaied by the space of one yere after the Accompte, Orels yf the Burgage fall in decaye or yf any Burgager be chosen Port Reve and do not execute his office, and answer accompte at the next Auditt That then thofficers of the Borowgh shall set up a stake against his doors, Then yf he make defalt in repayring his house or in payment of his rent or answeringe accompt within one yere after the stake so sett up his lands within the Borough shall eschete to the lorde.

During this period the house was said to be "at stake," the origin, no doubt, of the familiar phrase.

What was the general custom about water for human consumption is not very clear. In some villages a common well is mentioned; at East Overton there were two,

et tenentes predicti presentant quod sunt infra Estoverton predictum, qui utuntur ad usum inhabitancium ij communes fontes vocati Comon Wells.

But in other places water was a serious difficulty. At Shaftesbury, which stands high, though there was a very deep well in the wellhouse, and a special manorial service for the repair of the rope, most of the water was carried from Enmore Green in buckets by a body of men on foot, or in barrels on horses, and grants were made by the corporation to the carriers. Enmore Green was in another manor, and every year on Holy Cross day a curious ceremony took place which Mr. Straton thinks was in part an acknowledgement of this customary right, and in part a vestige of old well worship. He says:

The inhabitants formed a procession carrying "the Besant," with the couple last married dressed up as the Lord and the Lady. When they reached the well they danced hand in hand round it, carrying the Besant adorned with feathers, rings, and jewels of all kinds, lent by the people for the purpose, and said sometimes to be worth £1,500. They then presented to the Bailiff of the manor of Gillingham, in which the springs were situated, a pair of gloves, a calf's head, a gallon of beer, and two penny loaves of white wheaten bread, and the whole procession was feasted by the Corporation.

In early Celtic times it was customary annually, on Midsummer day, to dance round a tree decorated with coins, etc., or round a bunch of twigs hung with things of value. Frazer, in *The Golden Bough* (vol. iii, p. 319), describes a similar custom in Voigtland, where on St. John's day the people danced round a tree hung with all kinds of things. The Bezant of Shaftesbury was "a staff of besome adorned with feathers, pieces of gold, rings and jewels." It is probable that in Christian times a "Cross Bezantée," a term still used in heraldry, had been substituted for the besome, and that the festival had been changed to Holy Cross day. Votive offerings and sacrifices to fountains were common in classical times. Horace, in the Ode to Bandusia, and Ovid in describing Numa's sacrifice, both speak of offering to fountains "goblets crowned with flowers."

Of sanitary arrangements in the restricted sense very little is said in the survey, but in the note of one holding it is stated that in part of it was

una comminis forica pro servientibus domini in prehendacione domini apud Wijlton et etiam unum kenyll pro canibus domini.

Both were roofed with slates; *forica* is defined in Bailey's edition of Forcellini's *Lexicon* as "a public jakes, or house of office."

Every manor had a manor house, *domus mansionalis* or *mansio*, where the lord's farmer lived. Brief descriptions of some of these are given in the survey; at Donyngton, otherwise Dynton, the manor house had a tiled roof, and contained a hall, parlour (*parlaria*), kitchen, bed-chambers, and various necessary apartments, a chapel with a slate roof, a large barn and a columbarium, both roofed with slates, a house for sheep, and a stable. The columbarium or culverhouse was a most important adjunct to a manor. Not only were pigeons of great value as fresh food at a time of year when salted meat alone was available, but the dung from a culverhouse was valuable. A culverhouse could not be erected without the lord's licence, and attempts to restrain pigeon-rights were frequent causes of friction; the landlord acted no doubt partly in his own interests and partly in those of the smaller tenants, who must have suffered a good deal as things were from the depredations of these winged marauders. A manor usually had also a cowhouse and a dairy or daye-house—chiefly used for making cheese, which is often mentioned in the survey as an article of food—a laundry-house, a malthouse, and a bread-house. In addition to the sheep-house already mentioned, there was the shepherd's house, wool, and cloth woven from it, being the principal articles of commerce produced within the county.

In some places there were public bakehouses, and the bakers were carefully looked after, for there was an assize of bread to see to its weight and quality. The mill, whether driven by wind or water, was another important adjunct to a manor; what appears to be a water wheel may be seen in the lower left hand corner of the sketch of Wilton, which has been reproduced to illustrate this article. The right which the miller enjoyed to certain tolls which he deducted in kind from the corn he ground was doubtless the origin of the many ancient gibes against the honesty of the trade.

Ale was the chief beverage, and the quality of that sold was supervised by the ale-tasters. There were inns for travellers, but for ale men went to the alehouse; and some inns did not supply either food or drink, leaving their guests to send to the licensed victualler and vintner. The alehouses were usually kept by women; some only sold beer, and these alewives were called hucksters or tipplers, to distinguish them from others who were brewers as well as vendors. The days of brewing were carefully regulated by the corporation, and they were obliged to "keep their brulock" when fixed. Until the sworn ale-taster had testified that their beer was "good and wholesome for men's bodies" they were not permitted to tap it or put it on sale. The price was fixed by the assize of ale, and the quality by the assaye.

At no time, so far as we know, did the English have the habit of making soup, which has always been the unfailing accompaniment of every meal for the French peasant. Ale, usually home brewed, was the standard beverage with all meals. The third virtue in the cat-log of the virtues appertaining to the milkmaid beloved of Launce was "She brews good ale." Ale for breakfast sounds dissipated, but tea and coffee were unknown, though buttermilk may have been available, and the home brewed ale was probably a very mild beverage containing very little alcohol, and thin. It was hopped no doubt as a rule, and there are many records in the survey of hopyards, but probably not always. The custom, even among cottagers, of brewing beer at home has died out in some parts of England only very recently, if indeed it does not still survive. It was a pale straw-coloured insipid beverage, flat and mawkish, but by those accustomed to it preferred to tea or coffee, for they would carry it miles to their work, though tea was provided for them there. The beer sold at the alehouse must have been stronger, for it was on ale that Christopher Sly the tinker, who ne'er drank sack in his life, got so drunk that he laid him down on the ground to sleep, and might have passed for dead had he not breathed.

We must not attempt to dig more deeply into the survey; it gives a picture curiously distinct in some respects of rural England in the middle of the sixteenth century, when the men who were to man the fleets that ruined the Armada were still playing about the village green, which gives the general impression of a well settled, well ordered country, where the folk were ill-housed, but sufficiently fed, where money was scarce, but when a man had little real need for coin, having few wants which the manor could not supply, and where, in spite of the evident remnants of the feudal system, the people for the most part—in all that nearly concerned their daily life—governed themselves through officials they themselves elected. The world, we may conclude, at any rate in this corner of England, went very well then.


# British Medical Association.

## ANNUAL SUBSCRIPTION, 1910.

**Members are reminded that the Annual Subscription, amounting to 25s., falls due on January 1st.**

**Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.**

**In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.**

**By Order of the Council,**

**GUY ELLISTON,**
**Financial Secretary and Business Manager.**

**429, Strand, London.**

# British Medical Journal.

SATURDAY, JANUARY 1st, 1910.


## *MCMX.*

"WELCOME ever smiles, and farewell goes out sighing." 1909 has not been a good year; trade has been bad, worse probably than in the previous year, and the medical profession on its financial side has not escaped the general depression. It is probably the first of the professions to feel the effects of bad trade, which has an immediate and serious effect on earnings and a still greater effect on actual takings. In addition there have been during the past year certain other causes special to the profession which have tended to lower the general level of professional earnings. But financial prophets begin to prophesy smooth things. The reported revival of trade in the United States is believed this time to be genuine, in Germany also it is said business is improving, while official statistics of British trade are more encouraging than they have been for a long time. With such signs it is not unreasonable to hope that 1910 will bring to this country renewed prosperity, a greater volume of trade, increased employment, and consequently greater financial easiness. In this improved state of things the medical profession may reasonably expect to share. It may be that, as some maintain, the general election will prove a disturbing factor and will have the effect of delaying the promised improvement, but it will practically be over before the end of January, and the degree of disturbance it will produce has probably been fully discounted by men of business.

The questions on which the appeal to the country is primarily made at this general election are not such as concern members of the profession more than other citizens, but the opportunity should not be lost of bringing to the notice of candidates, in their present impressionable state, those problems awaiting legislative solution in which the profession is specially interested. The mind of the candidate is wax to receive, and may perchance prove marble to retain. At any rate there will be no such opportunity, until another general election comes round, of directing public attention to medical needs. With the object here indicated, the Medico-Political Committee has drawn up a memorandum, which is published in the SUPPLEMENT for this week, on the most important matters which are considered to be ripe for action. These are: The Medical and Dental Acts Consolidation Bill, death registration and coroners' law, the Public Health Officers Bill to provide *inter alia* security of tenure, the Midwives Act, 1902, with reference especially to the payment of practitioners summoned in an emergency, and nurses' registration. The list might, no doubt, easily have been lengthened, but it was probably felt that the subjects enumerated would suffice, and that it would be impolitic to overburden candidates with a more extended list of questions. The number of candidates who are actually working members of the medical profession is not large, and it is all the more important, therefore, to bring medical matters to the notice of all candidates now, so that they may be the better prepared to give attention to the arguments which will be adduced by medical members in the next House of Commons.

The British Medical Association will, as already announced, hold its Annual Meeting in London next July, under the presidency of Mr. Butlin, who has already served it well and long in other capacities. The Address in Medicine will be delivered by Dr. Mitchell Bruce, Consulting Physician to Charing Cross Hospital, London, and that in Surgery by Mr. Gilbert Barling, Dean of the Faculty of Medicine and Professor of Surgery in the University of Birmingham. The Representative Body will meet on July 22nd under the chairmanship of Mr. Ballance of Norwich, who has succeeded Dr. J. A. Macdonald in that office, and will continue its business on succeeding days. The arrangements for the Sections, which number twenty-one, are so far complete that a list of officers is published in the SUPPLEMENT (p. 3). It will be observed that certain changes in the arrangements and grouping of the subjects of the Sections have been made on this occasion. Bacteriology, which has hitherto been combined with Pathology, this year will have a section of its own, under the presidency of Dr. C. J. Martin, Director of the Lister Institute, while Mr. S. G. Shattock, Pathological Curator to the Royal College of Surgeons of England, will be the chairman of the Section of Pathology. There has been for many years a Section of Psychology or Psychological Medicine, and at the meeting in Edinburgh in 1898 there was a Section of Neurology; this year there will be a combined Section of Psychological Medicine and Neurology, of which Dr. T. B. Hyslop, Resident Physician to Bethlem Royal Hospital, will be President. There was an Electrical Section at Exeter in 1907, and at Sheffield in 1908, and at the last Annual Meeting in Belfast there was a combined Section of Dermatology and Electro-Therapeutics; this year there will be a section of Radiology and Medical Electricity, under the presidency of Dr. J. Mackenzie Davidson. The Section of Dental Surgery held on four previous occasions will on this occasion reappear under the name of Odontology. In accordance with the resolution adopted at the last Representative Meeting, a Section of Medical Sociology has been instituted, with Dr. J. A. Macdonald as President. This is the first occasion upon which a section with this title has been held, and the announcement of the subjects selected for discussion will be awaited with interest.

The great object for which the British Medical Association exists is the promotion of medicine and the allied sciences and the maintenance of the honour and interests of the profession; it has never sought to attain these ends in selfish fashion; it has always recognized that the medical profession exists for the good of the community, and that one of its highest duties is the prevention of disease. It has recognized that it has the duty of stimulating scientific inquiry and disseminating knowledge on all the many subjects—scientific, political, and social—an acquaintance with which goes to the making of a good doctor, who shall also be a good citizen. But it has demanded and will demand that the profession has earned a wider and more generous recognition from the State and from the public. It asks for union within the profession itself, for without such union it will be impossible to win for medicine that influence in the counsels of the State which rightfully belongs to it—rightfully in the interests of the public, more especially the poorer members thereof, and rightfully in its own interests

also. It might take for its motto the noble words of John Milton: "They are the troublers, they are the dividers of unity, who neglect and permit not others to unite the dissevered pieces which are yet wanting to the body of truth. To be still searching what we know not, by what we know, still closing up truth to truth as we find it (for all her body is homogeneal and proportional), this is the golden rule."

## PATHOLOGICAL DRUNKENNESS.

It is related in an old rabbinical legend that after Noah had planted the vine that God had given him Satan secretly watered it with the blood of a lamb, of a lion, and of a pig. The order in which these animals are named, though very likely without intentional significance, is interesting, for it corresponds roughly to the successive stages of acute vinous intoxication: First, the stage of mildly soporific euphoria; secondly, that of noisy, garrulous and actively quarrelsome excitement; and, lastly, that of bestial and abandoned lethargy. It is during the second stage that a very large proportion of all crimes of violence are committed, and the sudden and often explosive appearance of this phase is not at first sight apparent.

It might be expected that the operation of a general narcotic like alcohol would be to bring about simply a progressive obtusion of external and internal sensibilities, a gradual obliteration of consciousness, and an increasing motor enfeeblement—conditions not likely to be attended by criminal conduct. In some, doubtless, this is all that happens; but in most the lion phase, in some form or other, intervenes. We have been wont to say that alcohol, by enervating first of all the highest cerebral functions, for the time being annuls the superior inhibition of lower functions; or, expressed otherwise, that the removal of restraints which centuries of civilization have imposed upon man's primal instincts, allows his baser passions undisputed sway. It is, however, one of the many merits of Kraepelin and his school that they have put this matter, after long psychological experimentation, on a surer footing. They have shown, by means of an apparatus capable of estimating differences of one-thousandth of a second, that in addition to, or following, the increased internal resistance to mental processes, such as voluntary recollection, attention, and simple calculation, there is, after even small doses of alcohol, a shortening of the reaction period which intervenes between a stimulus and its motor response, the acceleration increasing at the expense of accuracy of result. That is, the process corresponding to psychic elaboration, which normally intervenes between stimulation and response, is either expunged or largely withdrawn. The sober man thinks first and then acts; the intoxicated man, in this stage, acts first and afterwards repents. The stimulus may be a gesture or an abusive word; the response a blow with the fist, or the knife. As Kraepelin says,[1] "This facilitation of motor reaction "is the source of all the unconsidered and aimless, as "well as impulsive and violent, actions which alcohol "has notoriously produced, recorded not merely in the "history of folly and youthful exuberance but in the "annals of passional crime."

This acceleration of motor response does not rapidly disappear; it may be present on the day following the intoxication, and in this prolonged effect is doubtless to be found the explanation of many crimes which have been committed by persons apparently sober, but who have been drinking shortly before. Many cases of this kind have been recorded, and, as an example, a case described by Dr. Dannemann[2] may be cited. A young man, whilst partially intoxicated, became involved in a quarrel, and received a blow on the nose and had his ears boxed by a certain S. This was at 10 in the evening, and the quarrel was soon amicably settled. About midnight the man, not obviously drunk, went home, and, passing on his way the home of S., became suddenly inflamed with anger, and, hastening to his house, seized a gun and ran back to the tavern. Here, in a room crowded with guests, from which S. was absent, he discharged his weapon at an unoffending man, wounding him fatally, and then fired again, wounding another, who afterwards succumbed, and injuring several others. He was apprehended, and was placed by the authorities under mental observation. There he was found to be mentally well endowed, normal in emotional reactions, and apparently of good moral character. His memory for past events was good, and, when first examined, for the events leading up to and during his homicidal acts. On the other hand, he had a history of nocturnal enuresis, lasting almost up to the date of his crime, and three years before he had sustained two severe head injuries followed by brief unconsciousness. Under experimental conditions it was ascertained that he was markedly intolerant of alcohol; at least, the finger tremors registered by Sommer's apparatus after moderate doses of alcohol were much more pronounced than with average people after prolonged drinking, and after even small doses the powers of observation and attention were unusually defective. The man, however, being found neither weak-minded nor insane, was sentenced to five years' penal servitude. The case was one of late reaction in a man markedly intolerant to alcohol.

Although different individuals exhibit the greatest variations in their toleration of alcohol, these variations being in all probability conditioned by factors such as race, temperament, character, and the individual oxidizing coefficient, the presence of a very marked intolerance of alcohol raises the suspicion of a latent pathological condition. The researches of numerous investigators have shown that, speaking generally, the insane, the weak-minded, the epileptic, and those who have sustained grave head injuries, are susceptible in unwonted degree to the evil influences of alcohol; and if, during intoxication, carefully concealed traits of character and suppressed desires come to the surface, it seems *a priori* possible that actual though latent defects or disorders, of insufficient intensity to invade the field of sober consciousness, may assert themselves when artificially freed from superior control. In this relation an interesting paper was published some time ago[3] by Dr. Tomaschny of Treptow, upon the use of alcohol as an aid to diagnosis in doubtful cases of mental disease, in which he described some cases of persons accused of crime, who, under observation and after the administration of alcohol, showed marked emotional changes of a kind corresponding to that in which they had committed the crimes, and with subsequent total amnesia. Of late considerable numbers of similar

[1] Kraepelin, *Beeinflussung einfacher psychischer Vorgänge durch einige Arzneimittel.* Jena: Fischer. 1892.

[2] Dannemann, Sommer's *Klinik. f. psych. u. nerv. Krankheiten*, Bd. I, Hft. 2. 1905.

[3] Tomaschny, *Allg. Ztschr. f. Psych.*, Bd. 63, Hft. 5.

cases have been recorded, and the term "pathological drunkenness," or *pathologischer Rausch*, has come into use in Germany. The essential characteristic is that the subjects exhibit marked intolerance of alcohol, the remaining symptoms varying according to the nature of the case, whether true or masked epilepsy, a transitory psychosis, or traumatic brain lesion. By intolerance of alcohol these writers mean that after the ingestion of a relatively small amount of alcohol signs and symptoms of a pathological order rapidly develop, but clear up quickly after the withdrawal of the alcohol. Among the many objective signs those most often quoted are: Marked finger tremor; increased knee-jerks and other deep reflexes; inequality of the pupils, and immobility to light stimulation; and among the symptoms of a subjective order: the unusually rapid appearance of the usual clinical picture of acute alcoholism, with false recognition of objects, actual hallucinations, powerful emotional disturbances, with their corresponding motor expressions, followed by complete recovery and total amnesia for the events of the period of intoxication. The fact, however, that in ordinary non-pathological drunkenness—if such a term be admissible—the above-mentioned somatic signs are of frequent occurrence divests them of any particular pathognomonic significance, except in so far as their facility of appearance suggests a constitutional nervous instability. Their conjunction, however, with the early appearance of marked disturbances of consciousness may certainly aid in the diagnosis of mental disease arrived at on safer and more convincing grounds. Beyond this it would be hazardous to go.

The authors of many of the recorded cases of pathological drunkenness evince a desire to extend to such cases the exculpatory clauses of the German Penal Code, basing the medical evidence mainly upon the phenomena disclosed by alcoholic intoxication. The question, therefore, is of considerable forensic importance. Drunkenness is, in point of law, no excuse for any wrong done by the drunken party, crimes committed in a state of drunkenness being punishable in the same way as if the actor were sober, although it is discretionary in the court to mitigate the sentence. Whilst every one will agree with Hoppe[4] that alcoholic intoxication is essentially a transitory mental disorder, not many will approve of his practical conclusion that drunkenness excludes responsibility, and that therefore when a man with a previously good record has committed a crime under the influence of alcohol, which he would not have done when sober, he should be released conditionally upon taking the pledge.

The whole matter has been very well put by Professor Weber of Göttingen, in an able discussion of a case in which the diagnosis lay between simple and pathological drunkenness.[5] The case, which had been the occasion of considerable litigation, presented many points of difficulty, and those interested in this question will find of value the detailed results of experimental dosage with alcohol. In dismissing the diagnosis of pathological drunkenness, Professor Weber insists that for such a diagnosis two things must be proved: First, a severe predisposition; and secondly, the development on this foundation, during alcoholic intoxication, of positive mental symptoms in addition to the usual evidences of acute alcoholism. With this statement most will agree, if it be accepted that the term "predisposition" includes grave fundamental abnormalities demonstrable under ordinary conditions.

[4] Hoppe, *Centralbl. f. Nerv. u. Psych.*, January 5th, 1906.

[5] Weber, *Klinik. f. psych. u. nerv. Krankheiten*, Bd. IV, Heft 3.

## "DEAD FINGERS."

THE condition of so-called "dead fingers," or "waxy fingers," is especially apt to occur or to become troublesome at this time of year, owing to the exposure of the extremities to cold. Chilblains, and the cyanosis associated with them, as well as definite Raynaud's disease, with gangrene, must be excluded, but between these two extremes there are a fair number of cases which are certainly distinct from the former and possibly from the latter, although the view that the condition of dead fingers is a mild type of true Raynaud's disease cannot be altogether rejected. The clinical signs of "dead fingers" are alteration in colour of the fingers to a deep purple, to white, or, most often, to a waxy, transparent yellow; alteration in temperature, which is subnormal locally and not seldom generally also; alteration in sensation, the fingers being more or less anaesthetic to external stimulation, while pain is sometimes a prominent symptom; other alterations in the innervation, such as local cold sweats and the formation of vesicles and bullae, also occur.

The lesions usually first manifest themselves after some particular exposure to cold or a long series of exposures, and apart from this they may be distinguished from congenital cyanosis of the extremities by the absence of "clubbing" and the deformities which are associated with that condition. There is no true oedema—in fact, the fingers usually look shrunken—and whatever colour remains, if discharged by pressure, returns slowly. It is significant that chilblains are not common. There is no paralysis of the parts, but voluntary movements are small in range and rather sluggish. Two types of the disease have been observed: Intermittent attacks, occurring at regular or irregular intervals, often at one particular time of the day; and a more or less permanent condition, lasting throughout the winter, greatly improving, if not completely disappearing, in the summer.

Two theories of the pathology of the condition have been entertained. The one would attribute it to a local neurosis, and its fairly frequent association with true sclerodermia and the nervous signs mentioned above—local cold sweats, bullae, anaesthesia—lend support to this view. The other theory supposes vascular spasm or local syncope—an explanation which seems particularly applicable to the intermittent type, bringing it into relation with the vasomotor disturbances sometimes seen in migraine. In some cases, also, the blood pressure is high and the pulse filiform.

Whichever theory be adopted, we are still left to seek some cause for the peripheral neuritis on the one hand and the vasomotor spasm on the other. When the general conditions associated with this disease are examined, it is found that the most serious are nephritis, albuminuria of the intermittent or morning type, and cardiac disease. Monro estimated that 12 per cent. of the cases showed some cardio-vascular abnormality, or gastro-intestinal disturbance, or evidence of syphilis. Clinically, the condition of the hands resembles that seen in the early stage of ergotism more closely than any other. Here we have in circulation a toxin known to produce vasomotor spasm.

To sum up from this evidence, then, the most probable explanation appears to be that the condition is an intoxication which makes the vessels more susceptible to external stimuli, so that they react in an exaggerated degree to those which normally would produce little or no effect; the extremities being the weakest point in the circulation would naturally show the first signs. Looked at from this point of view, then, the condition is not a disease, but, as Marcel Sée suggests, rather a syndrome of which the cause may be variable, as the general conditions mentioned above would suggest.

In examining a case, therefore, one should look for cardiac disease, gastro-intestinal dyspepsia or irritation, syphilis, and albuminuria, and treat these conditions, if found, by recognized methods. In some cases in which more or less definite cardiac symptoms have been present good results have followed resort to Nauheim treatment, the improvement observed being due probably to the cardiac muscle being brought into a more healthy condition. The spasmodic type is said to be most often seen in association with the intermittent variety of albuminuria. The drugs which have been found of advantage are: potassium iodide, which has given good results in cases in which there was no suspicion of syphilis, and quinine or arsenic, especially in the spasmodic type with crises; amyl nitrite, as a rule, only gives temporary relief. Locally hot dressings and irritants, such as mustard, should be avoided; cold rubbings and electricity give the best results. Of the latter the variety most commonly found useful is the constant current with the negative pole on the affected part, but high-frequency and more especially negative static currents sometimes give relief where galvanism fails.

## TAKING THE OATH.

SOME two months ago, in one of the principal divisions of the High Court, a discussion took place as to whether the new Oaths Act was as yet operative, and no one for the moment could decide the point. As a matter of fact, it comes into action on the last day of the current week—namely, January 1st—and in anticipation of the event a copy of the Act was published in the SUPPLEMENT to the issue of this JOURNAL for December 18th, 1909. When the Act was first introduced into the House of Commons we drew attention to several weak points which it presented, but these were eliminated during its passage through the House of Lords. To avoid "kissing the book" is now no longer merely permissible, for it is definitely laid down that the new form shall be that adopted in all cases where an objection thereto is not alleged by the witness. Moreover, adequate solemnity is secured by ordering that the witness shall not merely give assent to the words of the oath as repeated to him by the clerk of the court, but that he shall raise his right hand, holding therein a copy of the New Testament—or, if he is a Jew, the Old Testament—and himself repeat the words of the imposed oath. The ceremony of swearing a witness under the new oath as sanctioned by the Lord Chief Justice has been authoritatively described in the *Times* this week by an official of the High Court. *Officer of the Court*: "What is your name?" (*Witness having given his name.*) "Take the Book in your right hand and raise your hand." (*Indicating to the witness by gesture that the hand holding the Book be raised. This being done, the officer of the Court continued:*) "Repeat after me the following words: 'I swear by Almighty God that the evidence I shall give to the court (and jury) touching the matters in question shall be the truth, the whole truth, and nothing but the truth.'" During the passage of the bill through the Houses of Parliament practically no opposition was raised to the measure, but since then the member who introduced the original bill—Sir Thomas Bramsdon, coroner for Portsmouth—has expressed his discontent with the Act as passed, on the ground that making the witness repeat the oath will cause loss of time. The precise time which it will take to swear a witness in the new form has been calculated by a clerk of assize, who is likewise discontented, as eight seconds, but as, on his own showing, the present oath takes about seven seconds, the loss of one second per witness can scarcely be regarded as an important matter. The main thing is to impose an oath which is impressive without being insanitary, and the new oath fulfils both desiderata. The disappearance of the old uncleanly form will be greeted with much approval by the medical profession, whose objections to kissing the book have been strongly and constantly voiced in the pages of this JOURNAL. The bill does not apply to Scotland, in whose courts the need for reform in this respect has never existed.

## TYPHOID CARRIERS IN THE ARMY.

THE Director-General of the Army Medical Service has issued a second report[1] on the transmission of enteric fever by the "chronic carrier." It contains further details, in continuation of the first report, of the treatment of certain typhoid convalescents who were discovered in India to be "carriers," and were then invalided to England. One of them, Gunner C., was treated with cultures of lactic acid bacilli. Treatment was commenced on March 8th, 1909, and was continued until August 9th. On the latter date, for the first time since the man came under treatment, no typhoid bacilli could be found in the excreta; the lactic acid bacilli were then omitted, but in the middle of August typhoid bacilli were again found in the stools, to the number of some sixty million per gram. The treatment has therefore been continued, but apparently without complete success, although the number of bacilli has fallen to ten million per gram. In the case of another carrier, Private H., dosage with lactic acid bacilli seems to have been more successful. Treatment was commenced on March 8th, and ceased on May 28th. Since April 30th typhoid bacilli have not appeared in the stools. The excreta were regularly examined until July, when the man was discharged to duty, though arrangements have been made for further periodical examinations, in order to determine the permanency of the cure. It was noted that, fourteen days after the omission of the lactic acid treatment, there was a rapid rise in the excretion of *Bacillus coli*, showing that the inhibitory effects of the lactic acid bacilli were disappearing, but no signs of *B. typhosus* could be found. Two convalescent carriers were treated with antityphoid vaccines, but the results do not appear to have been altogether satisfactory. Upon one patient the effect of intestinal antiseptics was tried. He was put upon low diet, and urotropin was then administered in gradually increasing doses, beginning with 30 and ending with 48 grains a day. The numbers of typhoid bacilli fell, being only two million per gram at the end of seven days. But as the patient's weight rapidly diminished it was found necessary to give him a full diet. Thereupon the number of typhoid bacilli at once rose. In two cases in which the bacilli were excreted from the bladder treatment by raising the acidity of the urine was attempted. Sodium benzoate and acid sodium phosphate were the drugs employed,

[1] Cd 4,712. 1s. 9d.

30 grains of each being given to each man three times a day. Under this treatment the urine of Bombardier S. rose in acidity during the first week from +20 to +33, and the excretion of typhoid bacilli fell from 2,700 per c.cm. to 90 per c.cm. Later on, however, the acidity of the urine began to fall in spite of the treatment, and a corresponding increase in the excretion of typhoid bacilli at once took place. Similarly unsatisfactory results are reported with Lance-Sergeant L., the other patient who underwent this treatment. In the case of Private L., who suffered from occasional attacks of inflammation of the gall bladder and failed to respond to treatment with antityphoid vaccine, treatment by exposure to *x* rays was tried, the region of the gall bladder being exposed for three minutes to an 8 in. tube three times a week. Since the commencement of the treatment no typhoid bacilli have been found in the faeces, but no positive conclusion can, at present, be drawn from their absence, as the excretion of bacilli in this case was known to be intermittent. Commenting on the unsatisfactory results of the above-mentioned methods of treatment, the Director-General suggests that in the chronic carrier the bacilli in the gall bladder, urinary passages, and intestinal wall may be surrounded by areas of dead tissue, through which no curative agent can penetrate. "It follows, therefore, that no cure can result in such cases until all the contents of the necrotic areas have been discharged, which may be the work of years. It is also plain that if the 'chronic carrier' is to have a speedy cure, he must be detected before these changes have been produced in his tissues." Regarding the dangers arising from the typhoid carriers in the army, it is interesting to note that, in certain respects, the views of the Director-General closely correspond with those of the French authority, Professor Vincent, to which reference was made recently.[2] The Director-General says: "When the carrier is not employed in connexion with the preparation of food, it is conceivable that the infection might be carried (1) by direct personal contact; (2) through the agency of latrines and urinals either by dust or by flies. As regards direct personal contact, there is little evidence that, in peace time, this mode of infection is common in the army. Cases supposed to be due to carriers have rarely occurred in adjacent beds, or even in the same barrack room. It is, however, probable that in camp life, and especially on active service, when men are crowded in tents in actual bodily contact, such a mode of infection might hold a prominent place. As regards infection from urinals and latrines there has been a definite diminution in the number of cases of enteric fever in certain stations in India following on efficient sanitary care of these appliances and the substitution of disinfecting solutions, with a subsequent disappearance of flies, for dry earth. It does not, of course, follow that the excreta of the carrier cases have been the only infecting agents in these stations; it is more than probable that the excreta of undiagnosed and ambulatory cases of enteric fever have also played a part in such infection."

## EPILEPSY AND CRIME.

FIRMLY convinced of the important relations subsisting between epilepsy and crime, and deeply impressed during his twenty-five years' experience of police-courts with the belief that epileptics are frequently and wrongly sentenced to imprisonment, Mr. Thomas Holmes has given utterance, in the report of the Howard Association, to statements which have been described in the lay press as alarming. To ameliorate the lot of epileptics, and at the same time to mitigate what he evidently considers a crying evil, he has made the five following suggestions: (1) That all epileptics be notified to and registered by the local health authorities. (2) That proper control, supervision, and, if necessary, detention of epileptics be provided by the local authorities or the State. (3) That marriages with epileptics be made illegal. (4) That provision be made for a systematic and scientific investigation of the cause, cure, and effects of epilepsy. (5) That epileptics be no longer sentenced as criminals, but be adjudged to be epileptics and cared for accordingly. Mr. Holmes's proposals have been criticized in the *Westminster Gazette* by Mr. Penn Gaskell, the Secretary for the National Society for Employment of Epileptics, who—whilst agreeing that the present system, under which epileptics are so often treated as criminals, is absolutely wrong, and that many crimes are committed by epileptics not termed insane but nevertheless quite irresponsible at the time of committing these crimes—considers that compulsory notification would only impose still greater disabilities than exist at present upon an unfortunate class; that detention for all epileptics would be entirely unjustifiable, and that the prohibition of marriage would be futile unless applied to the whole families or stock from which the epileptic individuals spring. A medical authority interviewed by the *Westminster Gazette* expressed the opinion that Mr. Holmes had made a mistake in giving epilepsy *per se* an isolated importance, inasmuch as it was only one of many indications of nerve instability, and that many epileptics were exceedingly useful members of society, whose detention would be a public loss. The ground occupied by Mr. Holmes's suggestions is so wide, and they raise so many intricate and contentious problems on heredity, that we can here only touch upon the fifth, "that epileptics be no longer sentenced as criminals, but be adjudged to be epileptics, and cared for accordingly," the only one, we suppose, to which Mr. Holmes's long and intimate experience of police-court cases adds the weight of authority. Mr. Holmes maintains that prison statistics cannot give even an approximate idea of the number of epileptics committed to prison, owing to the favourable conditions of life inside prisons, and because of the probability that many epileptics, incarcerated for short periods, have no attacks in prison. It is within his knowledge, he says, that a very large number of men and women suffering from epilepsy have been sent to prison for being drunk and disorderly or drunk and violent, and that others have been picked up in the streets and convicted for being drunk and incapable. We have no wish to minimize the importance of this statement. It discloses a state of affairs which should be remedied. But it is impossible by means of this evidence, even when strengthened by the facts relative to many other cases of serious crime committed by epileptics as the result of their epileptic condition, to justify the sweeping assertion that "the very fact that a medical practitioner has notified to the health authorities that a certain individual is an epileptic ought to do away with any possibility of that individual being treated as a criminal." The proposal to put the whole body of epileptics—even using the term "epileptic" as denoting only those who have convulsive major epilepsy—under the common ban of civil incapacity and criminal irresponsibility only requires to be stated to be dismissed. If it be a fact, however—and we do not question it—that numbers of people are wrongly convicted of being drunk and disorderly when they have in reality been

[2] BRITISH MEDICAL JOURNAL, December 25th, 1909, p. 1813.

epileptic, then it is evident that some additional machinery, facilitating a closer scrutiny of such cases, is needed. Also, if it be true—and again we do not question it—that serious crimes have been committed by persons entirely irresponsible at the time of their crime who have yet been held sane and responsible and thereupon sentenced to penal servitude, the need for some alteration in judicial procedure becomes still more evident. In this relation we may refer to the case of a man, an epileptic, who was convicted of having killed his wife under great provocation. A few days before this he had an epileptic attack. At the trial he professed entire ignorance of his crime, of which there was no doubt. Being sane and there being no evidence that he was other than sane at the time of his act, he was sentenced to a term of penal servitude. In prison he had several major epileptic attacks. Two days after some of these attacks he became for some hours violently maniacal, and during these states of post-epileptic mania he remembered the whole events of his crime and those which led up to it, including an attack upon him, with a knife, made by his wife. On the day following these attacks he had again a complete amnesia for the events of his crime and the assault which led up to it. There can be no question that in this case, viewed in the light of subsequent events, the man was irresponsible at the time of his crime, and that his imprisonment was a wrong to him just as much as his liberation afterwards was a wrong to society. Cases of such deep psychological interest as this are doubtless rare. Nevertheless, many others probably occur where the wrong to the individual is as great. To remedy this matter, however, no alterations in the law affecting criminal responsibility, such as Mr. Holmes's suggestions would entail, are necessary; but merely reforms in procedure. In some of the German States doubtful cases of drunkenness are taken by the police to the psychiatrical clinics for observation, and we have no doubt that with the establishment of such institutions in England the blots which Mr. Holmes has indicated would be erased from the calender of the law court. With regard to serious crimes, we have on more than one occasion urged the adoption of some measure analogous to that provided by Paragraph 81 of the German Code of Criminal Procedure where "for the purposes of a more thorough investigation of the mental state of an accused person, the court may order, at the instance of a medical expert, and after hearing counsel for the defence, that the prisoner be sent to and detained in a public asylum."

## THE PRETENCE AND THE REALITY.

THE reports which have appeared in our columns during recent years, contrasting the composition of various proprietary medicines with the claims made for them, show that a favourite feature in the advertising of many of those of most recent origin is a pretence of personal attention to the details of each case by an expert. It is sometimes professed that this attention is given by a qualified medical practitioner, but whether alleged to be qualified or not, the "expert" is usually said to have made a life-long study of the particular complaint to be treated, and to know far more about it than any doctor practising his profession in the ordinary way. We have shown in many cases the hollowness of the pretence of personal attention to individual cases; instances will be found in *Secret Remedies*,[1] and some of the evidence given at a recent inquest at the Hammersmith Coroner's Court throws light on the kind of "expert" knowledge placed at the disposal of those deluded by such advertisements. The case was one in which the deceased had been taking the "Nelson Lloyd Obesity Cure," the results of the analysis of which were published in this JOURNAL, vol. ii, 1908, p. 1568, and in *Secret Remedies*, p. 100. As will be seen from the extracts from advertisements which are there given, the appeal to sufferers from obesity is in the form of a promise of personal treatment by "J. Nelson Lloyd," who says, "I myself am a member of a family many of whom died prematurely after much mental and physical suffering, arising from corpulence"; and "not only do I offer every client the full benefit of practically a life study of the whole subject of corpulence, but that I *guarantee* to effect a cure of every case I take up." The value of this "guarantee," and the real facts as to the proprietor's knowledge of the disease he guarantees to cure, are shown by his own evidence at the inquest referred to. The following is from a report of the proceedings in the *West London Observer:* "Mr. Frank Derry, the proprietor of Nelson Lloyd's Obesity Cure, recalled by the coroner, said his medical knowledge was confined to what he had learnt twenty years ago as secretary to a medical man. He had not been in the present business very long.—The Coroner: Since the last hearing I have had the advantage of reading your book. Did you write it? It is signed 'Nelson Lloyd.'—Witness: Of course, Nelson Lloyd is an imaginary person. The book was written for me.—In your book, you say, 'While studying for my degree?'—That represents the man who wrote the prescription. He assisted in the business.—But you are said to be Nelson Lloyd?—Yes, it is a joint effort.—When was the book first published?—In the spring of last year.—In the book you say, 'After I had succeeded in curing myself, I decided to take up the cure of obesity instead of that of medical practitioner'?—That represented the medical man who assisted me.—Obesity, you say, should only be treated by a specialist?—Yes.—You also say that you have made a life-study of it. Is that correct?—As for me, no, but as for the medical man, yes.—Do you undertake the diagnosis of a case?—With the assistance of a medical man. John Holmes, of Herne Hill, said he was a qualified medical man in America, but not in this country. As an employee of Mr. Derry, he went over the consultation forms and ordered the treatment." The statement of the proprietor, who is responsible for the letters and pamphlets sent out concluding, "I am, yours truly, J. Nelson Lloyd' (the signature being a facsimile of writing), and for the personal form of the advertisements, that "*of course*, Nelson Lloyd is an imaginary person," appears to show a correct appreciation of the degree of truthfulness usually pervading such a business.

[1] *Secret Remedies.* Published by the British Medical Association, 429, Strand, W.C. 1s.; post free, 1s. 3d.

## THE ANTIVIVISECTION HOSPITAL.

IT is the one duty of all hospitals to use every possible means for the physical well-being of their patients. To accomplish this great work two things are necessary: First, the use of all such remedies as have been found by experience to be of value. Next, thorough, frequent, methodical, unbroken routine in the examination and observation of cases. Furthermore, it is necessary that the hospital authorities should work well together, without quarrelling among themselves. If these conditions be not loyally and constantly obeyed, no amount of emotional sympathy, no sentiment, no religion, will save a hospital from being a bad hospital. It is just a year ago since the first of four inquests was held on cases at the Antivivisection Hospital at Battersea. The report of the case of Mabel Florence Jones in the *Times* of December 31st, 1908, seems to show that the child was seen twice as

an out-patient, that on the second occasion she was seen only by a nurse, and was not told anything as to the need of further attendance. The report of the case of Harry Large (*Times*, November 29th, 1909) appears to show that no medical man was in the hospital at the time of the boy's death, and that there was an arrangement that in any such emergency some doctor in the neighbourhood should be sent for. On this occasion, the coroner, Mr. Troutbeck, is reported to have said that "he supposed that the hospital was not in a very prosperous condition. It did not seem to be an entirely satisfactory way of conducting a 'general' hospital that the resident medical officer might be absent for prolonged periods, during which time, if anything serious should occur, in the opinion of the nurses, a neighbouring medical man might be sent for." On Tuesday in this week (December 28th) Mr. Troutbeck held two more inquests on cases at the Antivivisection Hospital. In the first, a woman who ran a pin into her thumb had gone to the hospital. She had waited there nearly two hours, and had seen no doctor. A nurse had told her to keep her hand in a bowl of water. Next day the woman was ill, and a local doctor was called in, who sent her to the infirmary, where she died of blood poisoning (*Times*, December 29th). Mr. Troutbeck said that "the Antivivisection Hospital called itself a general hospital, whatever that might precisely mean. In connexion with other hospitals one associated the term with certain facts, such as the continual attendance of a regular staff. . . . In fairness to the public, it ought to be made known that it was not a general hospital in the ordinary sense of the term." The jury said that in their opinion there had been neglect on the part of the hospital. The second inquest, on the same day, was on a child who had been burned. This unhappy child had been taken to and from the hospital twice a day, through the cold and wet, day after day. It is said that she did not see any doctor till the third day. It is said that on one occasion she was kept waiting for three hours. It appears that after nine days she was told that she would have to get a doctor and a nurse at home. She was admitted to the infirmary, where she died on Christmas Day. Mr. Troutbeck said "that these facts could not be considered as other than disquieting. It should be widely known what the treatment might be if people went to the Antivivisection Hospital. It was for the governors of this hospital to consider these facts and their responsibility. If they thought to run an institution which on inquiry presented these results as to the treatment which patients receive, it would end, not in the kind of case they were hearing, but in something much more grave. It was the duty of the governors to take very strong action to put their house in order." The jury said that there had been great neglect on the part of the authorities of the Antivivisection Hospital. Now, putting aside the fact that this hospital keeps, or used to keep, that absurd instrument a "Buisson bath for the prevention and cure of hydrophobia"; and putting aside the fact that a member of its staff, not long ago, at a mass meeting in Battersea Town Hall, derided diphtheria antitoxin as "animal filth"; and putting aside the fact that another member of its staff is reported (*Shrewsbury Chronicle*, December 18th, 1908) as saying, at an antivivisection meeting, that the hospital barred those drugs which "came through the channels of vivisection," let us consider what chance there is that the governors of this hospital will so far agree together as to be able to set their house in order. Here is a paragraph from an antivivisection journal, the *Animal's Guardian* (May, 1908): "There were several resignations from the Board of management during the past year. . . . Mr. Pomeroy has issued a circular to some of the governors, objecting to the presence, on the Board of management, of practically the whole of the members of the medical Staff, to which he takes exception, as being contrary to the plan adopted at other Hospitals. The Board has passed a resolution that Mr. Pomeroy's action is irregular." Later in the year we find the hospital solicitor suing Mr. Pomeroy for libel and obtaining £150 damages (*Standard*, December 17th, 1908). Last year we find (*Times*, July 9th, 1909) the senior physician—who was also a trustee, a vice-president, and the honorary treasurer of the hospital—resigning all these offices because the hospital had not, he says, shown sufficient courtesy to the second of two rival antivivisection congresses which were held in London last July. "Events have proved," he said, in a published statement, "that the board has been captured, and has acted in the sole interests of a factious clique." And he goes on to speak of the "grossly improper and unbecoming conduct" and the "mere factious spite" of the board of the hospital. Thus, we find this hospital, which professes to be animated by gentler sentiments than those of other hospitals, torn to bits by quarrels among its own authorities. Add to this that it has provided, out of a very few beds and a moderate number of out-patients, and the grave and repeated evidence, in the coroner's court, that the hospital is ill worked. We hardly know who shall set this house in order. We only hope that the King's Fund, if it have the power, will take the matter in hand at once. Meanwhile, we venture to suggest that the hospital might, without much loss to the Battersea poor, be closed.

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## THE RULE OF THE ROAD.

As is very well known, the rule of the road in these islands differs from that in every other, or almost every other, country, in that we pull to the left in meeting another vehicle, and that the rest of the world pull to the right. The obstinacy of this country in adhering to the left-hand rule has been condemned as an example of insular stolidity and arrogance, but there has always seemed a good deal to be said for it. It appeared probable that its origin was to be explained by the fact that most people are right-handed. The reins may be, and perhaps ought to be, held in the left hand, but for the all-important guiding touch most men like to have the right elbow free; therefore they sit on the right side, and therefore, when meeting another vehicle, have good reasons for pulling to the left, so that the two vehicles pass driver to driver, and the exact space between the two wheels is easy to gauge. The last objection to pulling to the right may, of course, be overcome if the driver sits on the left of the carriage, and this position is often, though not by any means invariably, adopted on the Continent. It is a fact, however, that in the case of most foreign railways the English rule of the road is followed; this may perhaps be accounted for by the fact that the first locomotive engines were made, and many of the earliest railroads on the Continent built, by British engineers, but this explanation will not apply to the motor car, and it is interesting to note that a proposal has seriously been made to alter the Continental rule of the road to make it agree with the British, because it would be a safer rule for the automobilist. In foreign motor cars, as in British, the driver sits on the right hand side, and this position has without doubt been selected because

the driver wishes to have the levers under his right hand, and that they and his hands should be free from the interference which a person sitting beside him might otherwise cause. If we may, without bringing down upon us the wrath of the ambidextrists, venture the opinion that man is naturally a right-handed animal, then we think it follows that there is good physiological reason for the British rule of the road.

### GROSS PARASITES AND BACTERIAL DISEASE.

IN an article published in the *Journal of Economic Biology* (vol. iv, Part 3, 1909) Dr. Shipley discusses "the relation of certain cestode and nematode parasites to bacterial disease." During the last three years he has been working on the parasites in grouse, in connexion with the Grouse Disease Inquiry. He has found that at times the grouse are very heavily infected both with cestodes and with nematodes, the former being found in the intestine, the latter both in the intestine and in the paired caeca, which in this bird attain to a remarkably large size. Each caecum, in a badly infected bird, may contain thousands of the thread worm *Trichostrongylus pergracilis;* and this condition is accompanied by changes, such as inflammation or atrophy, in the thickness of the caecal walls, together with a decrease in the power of absorption. By breaking the continuity of the mucous lining these worms allow the numerous bacteria which swarm in the lumen of the gut to gain access to the deeper tissues. Though these bacteria are harmless whilst in the alimentary tract, when they arrive in the deeper tissues they set up pathogenic change. Dr. Shipley also describes bacterial disease arising in rainbow trout from inoculation by the nematode *Cystidicola farionis*. This nematode, it seems, enters the swim bladder by piercing through the intestinal wall and traversing the intermediate tissues. In the course of its migration bacteria are naturally carried along with it. Another nematode—*Strongylus quadriradiatus*—has been found associated with a fatal disease of pigeons, death being due to peritonitis caused by bacteria which have passed through the damaged intestinal walls. Passing from the lower animals to man, Dr. Shipley thinks that disease of the vermiform appendix, as well as of other parts of the intestinal tract, may be initiated by entozoa more frequently than is commonly supposed in this country. He attaches particular importance to *Oxyuris vermicularis* and *Trichocephalus trichiurus* as organisms which may very commonly prepare the way for bacterial infections. Our medical grandfathers used to administer antihelminthics much more frequently than the present generation, and Dr. Shipley thinks that the increasing frequency of appendicitis may be due to this change in the therapeutic methods of the family doctor.

### EDINBURGH AND ST. ANDREWS.

IN response to a widely-expressed request, Emeritus Professor Sir Alexander Russell Simpson has consented to stand as Liberal candidate for the Universities of Edinburgh and St. Andrews, at the approaching General Election in opposition to Sir Robert B. Finlay, K.C. Sir Alexander Simpson at the beginning of his career was John Goodsir's apprentice; for seven years he assisted his uncle Sir James Y. Simpson, and in 1870 he succeeded him in the Chair of Midwifery in the University of Edinburgh. He retired in July, 1905. His university conferred the honorary degree of LL.D. on him, and the University of Manchester the degree of D.Sc. In 1906 he was created a knight. Sir A. R. Simpson's business capacity is well recognized in Edinburgh; he has been President of the Royal College of Physicians, was from 1900 to 1905 Dean of the Faculty of Medicine in the University, and is at the present time a manager of the Royal Infirmary. He has long taken an influential part in the religious and philanthropic activities of the city, and is well known as an advocate of temperance principles. No man could be better equipped by intimate knowledge and long experience in the practical work of higher education to represent the universities, and to form one of the too small number of medical members of Parliament.

MR. M. L. WALLER, Private Secretary to the Home Secretary, has been appointed Commissioner of Prisons for England and Wales, in succession to Dr. H. B. Donkin, who retires under the age rule at the end of January. Dr. Donkin's services will be retained in the special capacity of medical adviser to the Prison Commission for a further period of five years.

## GENERAL ELECTION.

### LIST OF MEDICAL CANDIDATES.

So far as we have been able to ascertain, the following is a complete list of medical men who are candidates at the General Election. Sir Robert Finlay, Sir G. H. Pollard, and Sir R. J. Price have all, we believe, long abandoned medicine for the law. Dr. H. S. Lunn has long been engaged in business, and Mr. John Dillon has—at any rate, in recent years—not practised as a medical man:

*England.*

Dr. Christopher Addison (L.), Hoxton.
Dr. G. Coates (U.), Lichfield.
*Sir William J. Collins (L.), St. Pancras West.
Dr. T. Eastham (U.), Hyde.
Surgeon-General G. J. H. Evatt, C.B. (L.), Brighton.
*The Right Hon. Sir Walter Foster (L.), Ilkeston.
Dr. F. E. Fremantle (U.), Rotherhithe.
Dr. Alfred Hillier (U.), Hertfordshire North or Hitchin.
Dr. H. S. Lunn (L.), Boston.
Dr. J. E. Molson (U.), Bethnal Green.
Dr. R. O. Moon (L.), Marylebone East.
Dr. Permewan of Liverpool (L.), Bootle.
*Sir G. H. Pollard (L.), Eccles.
*Sir R. J. Price (L.), East Norfolk.
*Sir G. Scott Robertson, K.C.S.I. (L.), Central Bradford.
*Dr. V. H. Rutherford (L.), Brentford.

*Scotland.*

Dr. W. A. Chapple (L.), Stirlingshire.
Sir Robert Finlay, K.C. (U.) } Edinburgh and St. Andrews.
Sir A. R. Simpson (L.) }
*Dr. A. R. Rainy (L.), Kilmarnock District.

*Ireland.*

*Dr. R. Ambrose (N.), Mayo West.
*J. Dillon (N.), Mayo East.
Dr. T. Laffan (H.R.), Mid-Tipperary.
*Dr. C. O'Neill (N.), S. Armagh.

*Sitting member.

## ADAMS v. POMEROY.

### AN APPEAL.

DR. L. GARRETT ANDERSON, 114A, Harley Street, W., Honorary Secretary of the fund raised to reimburse Dr. Martha Adams the legal expenses she incurred over and above the taxed costs in the action brought by her against *Vanity Fair* and others, including the Hon. Ernest Pomeroy, acknowledges the following further subscriptions:

| | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| Dr. Reginald Bligh Wall ... ... | 1 | 0 | 0 | Dr. G. Bennington Wood | 1 | 1 | 0 |
| Dr. and Mrs. Maitland Ramsay ... ... | 1 | 1 | 0 | Dr. Herbert R. Spencer | 1 | 1 | 0 |
| Dr. Percy Rose ... | 0 | 5 | 0 | Dr. Joseph O'Connor ... | 0 | 10 | 6 |
| Dr. W. A. Grogono ... | 0 | 5 | 0 | Mr. H. Alexis Thomson | 1 | 1 | 0 |
| Dr. A. E. Kennedy ... | 0 | 5 | 0 | Dr. Samuel Agnew ... | 1 | 1 | 0 |
| Dr. C. J. Stocker ... | 0 | 5 | 0 | Dr. L. Garrett Anderson | 2 | 2 | 0 |
| Dr. Alice Vowe Johnson | 1 | 1 | 0 | Dr. A. M. Edge ... | 1 | 1 | 0 |
| Dr. Eleanor Lowry ... | 0 | 5 | 0 | Dr. Frank Hinds ... | 1 | 1 | 0 |
| Dr. A. W. Paterson ... | 0 | 5 | 0 | Dr. Catherine Fraser ... | 0 | 2 | 6 |
| Major J. L. Marjoribanks, I.M.S. ... | 0 | 5 | 0 | Dr. R. Langdon Down ... | 1 | 1 | 0 |
| | | | | Dr. de Havilland Hall ... | 1 | 1 | 0 |
| | | | | H. C. M. ... ... | 0 | 10 | 6 |

# Scotland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## THE ROYAL VICTORIA HOSPITAL FOR CONSUMPTION, EDINBURGH.

*Completion of the Scheme: The Establishment of a Working Colony.*

AT the annual meeting of the Royal Victoria Hospital for Consumption, on December 23rd, 1909, Sir Alexander Christison, Bart., President of the Committee, in submitting the annual report, made an interesting speech regarding the development of the various branches of the hospital's activity, and dwelt on the completion of the scheme of antituberculosis operations, which was begun in 1887, through the establishment this year of the working colony. The purpose of the hospital was much larger than the cure of the hundred patients who were daily under treatment at the hospital proper. The institution in its several branches had a wide outlook on tuberculosis from the preventive as well as the curative point of view. It aimed at tackling every aspect of the problem with a view to the eradication of the disease. Towards this end a combination of agencies was necessary. The fundamental principle of the dispensary, founded twenty-two years ago, was that if tuberculosis was to be treated effectively it was not sufficient to treat the consumptive poor who presented themselves, with more or less advanced disease, at the out-patient departments of hospitals. Cases of tuberculosis must be sought for in their homes. The consumptive patient must be followed to his dwelling. Not only must the dwelling be inspected, but, as far as possible, all members of the household, so as to detect the disease at the earliest stage. It was constantly found that several members of a household were affected simultaneously. By the "march past," which had for so long been a feature of the dispensary, such contact cases were brought under the surveillance of the institution. It dealt with every type of tuberculous patient among the poorer classes and with every inquiry regarding the treatment and prevention of consumption. It sifted and grouped the cases and recommended the suitable line of treatment. Some patients continued as visiting patients at the dispensary. Others, too ill to visit the dispensary, were attended at their own homes by the doctor and nurse and by the Samaritan Committee. Early cases were passed to the sanatorium—the Royal Victoria Hospital—with a view to cure. Advanced and dying cases were recommended to the medical officer of health for admission to the city hospital (62 beds), or, in the case of paupers, to the parish hospital, where special provision existed. During the year at the laboratory of the dispensary the diagnosis of tuberculosis had been confirmed by bacteriological examination in no fewer than 418 cases. All cases presenting themselves at the dispensary were notified to the Medical Officer of Health of Edinburgh or of Leith, as the case might be. The dispensary had proved a most valuable instrument in relation to notification. The closest co-operation existed between the several branches of that institution and the public health department of the city, so that what was known as the Edinburgh scheme worked both efficiently and smoothly. The Victoria Dispensary for Consumption continued to be the centre, as it had been the beginning, of all the operations. It had been of the greatest value to the city, and had served as a model for similar operations in different parts of the kingdom and in America, and had been adopted in Canada for the institution of the Royal Albert Institute, recently opened by the King. The Royal Victoria Hospital itself now contained approximately 100 beds, and a considerable number of visiting patients spent the entire day under the régime of the hospital, returning home for the night. The system of graduated labour continued to prove of first importance in the treatment of patients. The grounds of the hospital had long been largely maintained, and extensions from time to time had been made, by the activities of the patients themselves. Coloured badges were given to the patients as they passed from one grade of work to a higher grade. The effect of this had been to add interest to the work and promote a healthy emulation to reach the highest grade. The degree of work was carefully regulated by physiological considerations. In the great majority of cases an arrest of the disease had been attained, and most gratifying evidence of the permanence of cure was forthcoming in letters frequently received from patients in the enjoyment of good health for years after their discharge. At the last annual meeting an appeal on behalf of a special working colony had been made by Lord Dunedin, who pointed out that the colony was not a new departure but an essential part of the original plan. The purpose of the colony was to afford occupation for a selected number of patients to whom return to their ordinary avocations would mean relapse and disaster. "Colonists" would be selected from among the patients who had passed to the higher grades of graduated work—that is, patients able to work the greater part of a day, but return to whose previous occupation would almost certainly mean relapse. He was happy to announce that in response to the appeal over £6,000 had been received within a few months. The Committee had carefully considered numerous sites, and had selected the estate of Springfield, adjoining the classic Hawthornden. This had been acquired and was in course of adaptation. The property contained 50 acres and an extensive dwelling-house, which would require only slight structural alterations. It was matter for much congratulation that the extensive scheme, begun almost a quarter of a century ago, which had involved much thought and hard work, had now been almost realized. While foreshadowing various extensions in detail, he was glad to say that the main lines had been completed.

The adoption of the report was seconded by Lady Dunedin, and carried unanimously.

## EDINBURGH ROYAL INFIRMARY.

At a meeting of the managers on December 20th, 1909, Dr. R. McKenzie Johnston presiding, intimation was made that the Royal College of Surgeons had reappointed Mr. George A. Berry, M.B., F.R.C.S.E., and Dr. R. McKenzie Johnston, F.R.C.S.E., as representatives on the board of management.

## EDINBURGH PARISH COUNCIL AND TEMPORARY MENTAL DISORDER.

At the last monthly meeting of the Edinburgh Parish Council the question of the treatment of temporary mental disorder in the Edinburgh Royal Infirmary was considered. As the result of negotiations carried on for some time between the two boards, an arrangement had been come to whereby cases of temporary mental disorder will be treated in the Royal Infirmary. The recommendations, which will form the basis of the arrangement between the council and the infirmary, set forth that the council shall be entitled to have not more than three patients in all at any one time in Ward 3 and the adjoining side rooms, provided there are enough beds vacant, but that beds shall not be kept vacant or reserved for parish council patients if required for other patients; that cases of acute mania shall not be sent in; that no case shall, unless under very exceptional circumstances, be retained for more than six weeks; that the managers of the infirmary shall not be held responsible for any patient escaping; that the arrangement shall be tentative for twelve months, and that either party may thereafter withdraw; and that the parish council shall pay at the rate of 3s. 6d. a day for each case treated. The arrangement begins on January 1st, 1910. Dr. William L. Martin has been appointed certifying physician in lunacy, with a remuneration of £100 a year.

## CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

The eighth annual report of the Carnegie Trust for the universities of Scotland was submitted to the

annual meeting of the Trust held in Edinburgh on December 20th, 1909.

In the laboratory of the Royal College of Physicians of Edinburgh, which in the department of medicine has taken a prominent share in the Trust's scheme of research, the record of work for the past year was very encouraging. The expenditure for 1908–9 upon the scheme of fellowships, scholarships and grants, and upon the laboratory was respectively £6,861 and £1,992; towards the latter the Royal College of Physicians and the Royal College of Surgeons together contributed £1,025.

Besides making contributions of £65 250 to buildings and permanent equipment and £20,500 to libraries, the Trust will at the close of the period of five years have increased the resources of teaching in the four university centres by permanent endowments amounting to £87,500, while it will at the same time have afforded during the five years an annual income of about £4,150 to meet ordinary expenditure.

The regulations for the payment of class fees in the universities and extramural colleges of Scotland remain unaltered. Statistics of the payment of class fees for the academic year 1908–9 give the total number of beneficiaries as 3,553, the total amount paid in fees as £47,070 18s., and the average amount in fees paid for beneficiaries as £13 4s. 11d., an increase, as compared with the preceding academic year, of 284 beneficiaries, of £3,814 16s. 6d. in the total expenditure, and of 3d. in the average amount per beneficiary. During the year the sum of £257 10s. 6d. was voluntarily refunded on behalf of eleven beneficiaries, for whom class fees had been paid by the Trust.

### GLASGOW AND THE NOTIFICATION OF PHTHISIS.

The Local Government Board for Scotland has approved the order of the Corporation, as local authority under the Infectious Diseases (Notification) Act, dated December 2nd, 1909, to make tuberculosis of the lungs or tuberculous phthisis a notifiable disease. The order will be in force from January 1st, 1910, for a period of three years.

### EXAMINATION OF NURSES BY THE LOCAL GOVERNMENT BOARD.

Last week the Local Government Board issued the result of an examination which was held in Glasgow on December 7th, 8th, and 9th, 1909, for the certification of trained sick nurses. Forty candidates presented themselves for examination, and all passed in one or more subjects; eleven completed the examination, and are entitled to the certificate of efficiency granted by the Local Government Board. The examiners were Dr. J. O. Affleck, Edinburgh; Dr. D. J. Mackintosh, Medical Superintendent, Western Infirmary, Glasgow; and Dr. W. J. Richard, Medical Officer to the Govan Poor House. They were assisted in the practical part by Miss Smith, Matron of the Western Infirmary, Glasgow; and Miss F. A. Merchant, Matron of the Eastern District Hospital, Glasgow.

### THE SIDLAW SANATORIUM.

Notwithstanding the generous offer of Mr. J. K. Caird, Dundee, of £10,000 to the Directors of the Dundee Royal Infirmary to enable them to assume control of Sidlaw Sanatorium, the matter is not yet settled. At a conference held on December 23rd, 1909, between the directors of the infirmary and the trustees of the sanatorium, the latter suggested that an effort should be made to induce Mr. Caird to alter the terms of his gift to permit of the admission of male patients to the sanatorium, instead of restricting it to children and women; it was pointed out that if this were done the trustees would be prepared to consider the question of handing over the management of the sanatorium to the infirmary directors, and at the same time give the directors the proceeds of the endowments, subject to the right of nominating to certain beds.

The infirmary directors met on December 27th, 1909, and members of the medical staff present at the meeting expressed a unanimous opinion that the maintenance in the sanatorium of a number of beds for tuberculous children would be of immense advantage to the city. The directors subsequently agreed to submit to Mr. Caird a scheme to provide that twenty beds be set aside for children, and that the remaining twenty beds should be equally divided between men and women suffering from pulmonary consumption. With regard to the financial liability, it was reported that the estimated annual charge was £2,200. Of this amount the revenue from the Caird gift and the investments would yield £1,500, and it is hoped that the town council will contribute £500 a year, which would entitle it to nominate several patients. The sanatorium at present receives about £200 annually in private subscriptions, and the directors of the infirmary hope that these will be continued.

### FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

The King, through the Secretary for Scotland, has signified his pleasure that the word "Royal" be prefixed to the title of the Faculty of Physicians and Surgeons, Glasgow.

### NOTIFICATION OF PHTHISIS.

At a meeting of the Deeside District Committee held recently at Aboyne, Mr. John Michie moved that the Infectious Diseases Notification Act, 1889, be extended to include pulmonary phthisis in the list of notifiable diseases under the said Act, and that such Order be permanent, and come into operation at the expiry of one week from the date of the publication of the resolution as approved by the Local Government Board. Mr. Joseph Farquharson seconded. Dr. Watt said different provision was required for early and advanced cases of tuberculosis. Local patients for years back had been going to the Aberdeen Royal Infirmary, that being practically the only hospital available for advanced cases. But all over the country hospitals were beginning to close their doors to advanced cases because of the expense, and because it was not considered wise to have too many advanced cases in the wards with other patients. The whole accommodation in the hospital at Aboyne was required for those suffering from other diseases. If there were no objection by the people at Braemar, and he saw no reason for such objection, the hospital there might be turned to good account by treating advanced cases of phthisis in it. It was quite possible they might be able to get a sanatorium for the county, and for adjoining counties, and the city of Aberdeen, by voluntary contributions and aid from local authorities and paying patients. The motion was agreed to.

# Ireland.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

### INSPECTOR OF ANATOMY.

IT is announced that the Chief Secretary for Ireland has appointed Sir William Thornley Stoker, M.D., F.R.C.S.I., to the post of Inspector of Schools of Anatomy in Ireland, rendered vacant by the death of the late Sir William Thomson, C.B., M.D. Sir Thornley Stoker is a Past President of the Royal College of Surgeons in Ireland. He is Surgeon to the Richmond Hospital and Government Inspector for Ireland under the Vivisection Act. At an earlier period of his career he was Professor of Anatomy in the College of Surgeons.

### CUNNINGHAM MEMORIAL.

At a meeting of the Executive Committee held on December 20th, 1909, at which Dr. James Little, Regius Professor of Physic, presided, it was decided to ask Mr. Oliver Sheppard to prepare the designs for the medal and bronze panel. In obtaining Mr. Sheppard's services the committee is fortunate not only in securing an artist who has already given the School of Physic two beautiful works of art—the Bennett and the Banks medals—but has the satisfaction of entrusting the preparation of the portrait of

the late professor to one of his former pupils. A number of letters were read which had been received from members of the School of Medicine at Edinburgh dealing with the question of a proposed memorial to Professor Cunningham in the University of Edinburgh. The committee felt that the suggestion of establishing similar medals, to be awarded in anatomy, and of placing identical bronze portrait panels in the schools of the two universities, was one which would meet with the unqualified approval of the subscribers, and would help to maintain the strong link between the two universities forged by the life and work of Cunningham. The secretaries were instructed to write to Dr. George A. Gibson explaining the views of the Dublin Executive Committee, and expressing the hope that a joint scheme would be arrived at, meeting the wishes of both universities.

# England and Wales.

*[FROM OUR SPECIAL CORRESPONDENTS.]*

## WEST YORKSHIRE.

### THE SMELLS OF BRADFORD.

THE inhabitants of Bradford have a great deal to put up with. The city has been pitched in a somewhat bleak, wild portion of the West Riding, exposed to more than the usual vagaries of the British climate. It is the centre of large and varied industries, many of which pollute the earth, the sky, and the streams in the neighbourhood. Nature has not dealt kindly with the district, and man has not been more considerate. It is remarkable that the people as a race are so strong and healthy. It appears to be an example of the theory of the survival of the fittest, the weaklings dying off or fleeing from the district; the stronger remain, and, combating the powers of Nature and civilization, develop all those faculties for initiative and industrial energy for which the city is famous. The Corporation is endeavouring to limit the injurious effects produced on the inhabitants by the processes of industry, and it is possible that a few decades hence the water in the streams and the air breathed by the people of Bradford will be as pure and healthy as in any country district. The Bradford Corporation has recently brought an action in the Chancery Division against the Hillcrest Oil Company, Limited, asking for an injunction to restrain the defendants from allowing smells from their works to pollute the atmosphere. A large number of witnesses gave evidence, amongst others being Dr. Arnold Evans (M.O.H. for Bradford). The injunction was granted, and it is to be hoped that Dr. Evans will exert all his power and influence in this direction over the whole city. A particularly obnoxious class of smells is being produced by the Bradford Corporation itself at the sewage works at Bolton Woods at the present time; that they can be much diminished was apparent some eighteen months ago, when special pressure was put on the Sewage Committee in this direction. The Corporation ought to set a good example to the private industrial concerns and endeavour to abate this nuisance at the earliest possible moment.

### BRADFORD ANTHRAX INVESTIGATION BOARD.

The annual meeting of this board was held at the offices of the Bradford Chamber of Commerce on December 20th. The appeal made a year ago for a continuation of subscriptions for a further period of three years has met with a most satisfactory response. During the year 787 samples of wool, hair, and dust were examined for the presence of anthrax germs. Of these 719 were bloodstained. Anthrax bacilli were cultivated from 23 samples, all of which were bloodstained. The board states "that from the experiments of the last two years it is satisfied that if care be taken to remove all bloodstained material in the sorting department little or no danger from anthrax exists in the subsequent processes." Unfortunately in some materials, such as Persian or other brown or grey wools, the clots of dried blood are not easily distinguishable, and some of them are combed unsorted. In some of these cases it will be difficult to ensure that all bloodstained material is thrown out. It appears that it has not yet been possible to obtain a germicide that will sterilize anthrax spores in the few moments during which it can be applied to the material in the process of manufacture. Experiments with the view of ascertaining whether anthrax can spread from infected bloodstained material in the bale have shown (1) that when the latter is dry no extension of the germ takes place; (2) when wet or damp extension takes place only into the immediate vicinity of the deposited germs; wool 1 cm. distant from the infected area escapes contamination. Great credit is due to the untiring energy of the board's bacteriologist, Dr. Eurich, for the invaluable work done in endeavouring to investigate the sources of this industrial disease.

### MEDICAL STAFFS OF THE BRADFORD HOSPITALS.

Some time ago it was felt that it would be a good thing for the medical staffs of the charitable hospitals to meet at intervals and discuss matters affecting the hospitals and their own interests. A preliminary meeting was held a few weeks ago, and more recently the first meeting was held at the Bradford Royal Infirmary. There should undoubtedly be unity of purpose amongst all medical men giving their services to the medical charities, and this movement is a step in the right direction. Great credit is due to Dr. Bronner, who took the initiative in the matter. At a moment when the rebuilding of the infirmary and additions to the Royal Eye and Ear Hospital are being considered, and extensions of the Children's Hospital and the St. Catherine's Home for Cancer are proposed, it is very advisable to obtain co-ordination and prevent overlapping.

### THE ASSOCIATION AND THE BRADFORD MEDICO-CHIRURGICAL SOCIETY.

A joint meeting of the Bradford Division of the British Medical Association and the Bradford Medico-Chirurgical Society was held at the Bradford Royal Infirmary on December 14th, 1909. The evening was devoted to the demonstration of clinical cases and pathological specimens. A large number of cases were shown, and the evening was very successful. It is a good thing to have these joint meetings, but it would probably be even better to have all the local medical meetings under one common denominator—the British Medical Association—as was proposed and strongly urged in Bradford some years ago.

## MANCHESTER AND DISTRICT.

### CLEAN SHAVING.

THERE is naturally a feeling of the greatest concern among hairdressers at the result of several recent actions at law in which hairdressers have been mulcted in damages for what is known as a "foul shave." Following closely on such actions at Hull and Huddersfield came an action in the Manchester Court of Record. In this case the plaintiff said that while being shaved at a Manchester hairdresser's he was slightly cut; the same evening "watery matter" came from the wound which caused him much uneasiness. Several days after a skin disease developed, and he went to Dr. Lancashire, who pronounced it to be impetigo contagiosa. Dr. Lancashire, in his evidence, said he had no doubt that the cause of the disease was the cut, which when he saw it was surrounded with a number of tiny blisters. The period of incubation, he said, was from twenty-four hours, or even less, to forty-eight hours, before the specific signs of the disease would be seen, and it would take from one to two days for matter to form. It was not sufficient merely to dip the razor into boiling water, it must be kept in actual boiling water for at least a minute, to get rid of the germs. Dipping in boiling

water followed by wiping dry, stropping, and again dipping in boiling water would make a razor quite safe. But the germ might not have been on the razor at all, for given a slight abrasion of the skin germs might be picked up from towels or sponges. Dr. Sankey, Police Surgeon, said that matter could not possibly flow from the wound an hour or two after it was caused, nor could the disease be spreading over the face and neck the following day. That would point to a previous inoculation. It was impossible that the disease should show itself within twenty-four hours of inoculation as was said. Dr. Wolstenholme, medical referee to the Salford Hairdressers' Association, said that if the disease was spreading on the Saturday it was impossible that it could have been contracted on the Friday afternoon. Impetigo could be got in numerous other ways besides shaving; a frayed collar, for instance, might be the cause, or plaintiff might have had the germs in him beforehand. In the circumstances it was impossible that he should have contracted the disease at defendant's saloon. The judge instructed the jury that for the plaintiff to be entitled to a verdict it was necessary to prove that "the illness had been caused by an act for which the defendant was responsible." The jury found for the plaintiff, and awarded £24 damages.

There appears to be a strong feeling among hairdressers that medical men are sometimes careless in expressing opinions in these cases, both as regards diagnosis and in attributing in an offhand way any skin disease on the face to the last shave. There have even been threats of legal actions against medical men for giving a wrong diagnosis, though the editor of the *Hairdressers' Chronicle* very sensibly remarks that such proceedings would be "more than fatuous, nothing short, in fact, of suicidal." It may be pointed out that exact diagnosis, though of course quite necessary for treatment, is not necessary legally—that is, that it makes no difference to the success of an action for damages whether the disease is true tinea sycosis, impetigo, or any other disease. The ruling of the judge was quite definite that "all that needs to be proved is that the illness was caused by an act for which the defendant was responsible." There are certainly some points about the Manchester case which make it very doubtful whether the verdict was correct. Juries are far too prone in actions for damages to confuse *post hoc* with *propter hoc*. The improvement in hairdressers' saloons in Manchester has been very marked of late years, and there is undoubtedly an attempt to exercise sanitary and antiseptic precautions. Medical referees are appointed by trade associations in various towns, and lectures are given to hairdressers by medical men. Dr. Wolstenholme recently gave a lecture, open to the whole trade, dealing with the anatomy of the skin, the structure of the hair, the various diseases which may come under the notice of hairdressers, and the precautions that they should take. Referring to the relation of the trade to the medical profession, he said it would be a great pity if the Hairdressers' Association were to think of entering an action against a medical man who honestly gave his opinion to his patient. It would be quite right to call on him to prove his statement if he asserted that a man got a skin disease at a certain barber's, and he thought that medical men, when such cases came before them, ought not to say anything which might point to the liability of any particular hairdresser.

### The Joint Matriculation Board.

The Joint Board of the universities of Manchester, Liverpool, Leeds, and Sheffield, which conducts the matriculation examination, has just issued its annual report, which shows that the number of candidates at the ordinary matriculation examination has fallen from 2,214 to 1,953, though the number of those who satisfied the examiners has risen from 960 to 1,067. The fall in the number of candidates thus appears to have been among those whose attainments were below the standard set by the board. The number of candidates already holding matriculation certificates who presented themselves for supplementary certificates at the higher standard has risen from 17 to 112. The number of exemptions granted to students holding certificates of other bodies has risen from 142 to 256. The board has arranged with the University of London under certain specified conditions for the mutual acceptance of certificates and also for the mutual acceptance of school certificates of the Oxford and Cambridge Schools Examination Board. The board has conducted the examinations for the award of scholarships by the education committees of Lancashire, Cheshire, the North and West Ridings of Yorkshire, Manchester, Salford, Liverpool, Leeds, Southport, and Blackpool, and also for the entrance examinations in some universities. The most important action of the board during the year has been in connexion with its scheme for the inspection and examination of schools. This has been carried out more fully during the year, and promises to become very successful.

## LIVERPOOL.

### Proposed Presentation to Sir James Barr.

A movement is on foot to make a presentation to Sir James Barr, who has recently completed his term of office as physician to the Royal Infirmary, to which he was appointed in 1897. Before that date he was successively physician to the Stanley Hospital and physician to the Northern Hospital. The presentation will take the form of a portrait to be painted by Mr. Hall Neale, and a dinner given to Sir James and Lady Barr, to which ladies will be invited. The presentation committee includes representatives of the various institutions with which Sir James has been connected, and it is expected that the movement will be widely supported.

### The Royal Infirmary.

Dr. R. J. M. Buchanan, who has been assistant physician to the infirmary for more than eight years, has been elected physician in succession to Sir James Barr. Dr. Buchanan was a distinguished student of the Liverpool School, and was recently elected Professor of Medical Jurisprudence at the University.

## NEWCASTLE-UPON-TYNE.

### Professor Page.

Old students of the University of Durham College of Medicine will receive with regret the announcement of the retirement of Professor Page from the chair of surgery. For many years his name has been associated with the teaching of surgery in the infirmary and College of Medicine. A dexterous operator and an able exponent of the principles and practice of surgery, the kindly feelings of students and friends will accompany him into his wished-for leisure, with the hope that he may have many years to enjoy it.

### The Clinical Society.

The tickets for the banquet of the Newcastle-upon-Tyne Clinical Society on January 13th are being taken up with great readiness. All who wish to be present should at once apply to the honorary treasurer, Dr. Wells Patterson, Ellison Place. In addition to Sir Halliday Croom other distinguished guests are expected. An interesting and pleasant evening is being looked forward to under the presidency of Mr. Joseph Leech. The dinner will be held in the King's Hall of the Armstrong College.

### The College of Medicine.

On February 3rd the dinner of the past and present students of the University of Durham College of Medicine will be held in the large hall of the College of Medicine. Dr. W. C. Beatley will be in the chair. The Duke of Northumberland, the Earl of Durham, and the Lord Bishop of Newcastle have accepted invitations to be present. Tickets can be had from the honorary secretary, Mr. W. T. Hunter, College of Medicine.

By the new charter granted to the University of Durham the senate of the university has been considerably enlarged. Among those added are the names of several well-known laymen. The College of Medicine, in addition to Sir George Hare Philipson, gains by the addition of Dr. Drummond and Professor Horder.

## LONDON.

PAYMENT FOR TREATMENT OF SCHOOL CHILDREN.

THE Education Committee of the London County Council on December 22nd approved a scale of charges to parents who can afford to pay for the medical treatment of their children. A subcommittee which had charge of the matter reported that the Council was not entitled to totalize the whole of its payments for medical treatment and divide the cost equally between the number of children treated, but that the charge made to the parent should represent as nearly as possible the actual cost of the treatment of the individual child. The payments to be made to the eight hospitals with which the Council had made arrangements on a financial basis varied in respect of each hospital and also in respect of each ailment treated. It would be undesirable to differentiate in the charges at the hospitals, but it would be possible to vary the charges to be made in respect of each ailment. It was calculated that the average cost of the eye cases would be approximately 4s., and of the ear cases 5s. The cost of ringworm treatment was not known with any certainty, and the subcommittee had not considered this for the present. The average number of attendances in eye and ear cases might be taken at three. On this basis the cost for each attendance would be 1s. 4d. and 1s. 8d. respectively. This might be taken as the nearest approach to the actual cost at which it was possible to arrive. Each case should be considered on its merits, and the parents charged with such a proportion as they might reasonably be expected to pay. The care committees, which under the scheme for feeding necessitous children had a great deal of information as to parents' means in its possession, should decide in each case. The subcommittee felt that some standard should be adopted to prevent wide variation in different districts. It advised that a family of two parents and four children, having a net income of 17s. 6d., after payment of regular outgoings, or a family still worse off, should not be charged anything for medical treatment, and that those better off by reason of their having smaller families or a larger income, should be charged upon an ascending scale. The proposal met with little opposition, though the minority on the committee who support school clinics not unnaturally took the opportunity of pointing out that if that system had been adopted, much of the difficulty of fixing a scale for repayment and travelling expenses would have been avoided.

## WALES.

THE EPIDEMIC OF MEASLES.

AT a meeting of the Bedwellty District Council, held on December 20th, 1909, Dr. R. T. E. Davies, J.P., presiding, the medical officer of health (Dr. H. T. Evans) reported that in conseqence of the outbreak of measles in the Rhymney Valley he advised the closing of the elementary schools there on November 12th, but that although the epidemic had been serious, and in many instances fatal, to children under 5 years of age, it had not been so bad as some of the press reports indicated. It was not correct to state that thirty lives were lost through the epidemic. Unfortunately four deaths had occurred in one family, but all were due to bronchopneumonia. The number of deaths caused by measles and its complications at Aberbargoed, where the outbreak was most severe from October 1st to December 18th, was fourteen. He did not consider that the schools were the source of infection, nor did he think that the closure of the schools had had the slightest influence in diminishing the incidence of the disease. School closure might be of advantage in rural districts where the schools were the only common point where children met, but in districts like Aberbargoed, with its long streets, densely populated, overcrowding of small houses on small areas, and overcrowding of people in small houses, where isolation was impossible at home, the opportunities of contracting the disease were not far to seek, even though the schools were closed. In the discussion that followed, Dr. Evans said that of the fourteen deaths at Aberbargoed only one of the children attended school.

# New South Wales.

*FROM OUR SPECIAL CORRESPONDENT.*

CLINICAL SCHOOL AT THE SYDNEY HOSPITAL.

NEGOTIATIONS have been in progress for some time between the Senate of the Sydney University and the directors of the Sydney Hospital with a view to the utilization of the hospital as a clinical school. Since the opening of the Sydney Medical School the students have done practically all their clinical work at the Royal Prince Alfred Hospital, but the increasing number of students has rendered it advisable that the Sydney Hospital should also be used for teaching purposes. The clinical school at the Sydney Hospital was accordingly officially opened last month by the chairman of the board of directors, Mr. John Pope, in the presence of a large number of students and subscribers and nurses.

Dr. Fiaschi, the Chairman of the Sydney Hospital Board of Medical Studies, in the course of an interesting address, said that it was ninety-eight years since Governor Macquarie laid the foundation stone of the Sydney Infirmary, and it bore that name for many years. It was incorporated as the Sydney Hospital in 1881, and the site on which the original building was erected was the same as that of the present building. The line of work had been consistently the same during all these years—namely, the relief of the sick poor, the education of medical students, and the training of nurses. From a very early period of its history the hospital had made provision for the training of medical students, and students were enrolled so far back as the Fifties. Dr. James Cox, who was present that day, was one of the first students of the hospital, and he was one of the four who subsequently went to Great Britain and graduated there. Chloroform was used for the first time in Australia in the Sydney Hospital, and many important operations and new methods of treatment had been first tried in Australia in the wards of that institution. After thirty years the training of students in the hospital ceased, because the establishment of the Royal Prince Alfred Hospital, in close proximity to the Sydney Medical School, afforded the students better opportunities for clinical work. When the infirmary was first established in 1811 the total population of the colony was 11,875, and the population of Sydney was 4,895, but the discovery of gold and the consequent influx of population in the Fifties contributed to its prosperity; a critical period in the history of the hospital occurred in the Eighties, for it was proposed at that time that the site upon which the hospital stood should be resumed by the Government and put to other uses. This proposal was over-ruled, and the present building was commenced in 1890, though the last portion of it had only been completed in 1907. In the number of beds and the accommodation for in-patients the Sydney Hospital was second only to that of Melbourne, but in the total number of patients it was far ahead of any other hospital in Australia. The hospital was a magnificent institution for the instruction of students, and that the time was ripe for it to become one was evidenced by the fact that twenty students had already entered for their clinical course.

Professor Anderson Stuart, Dean of the Faculty of Medicine in the Sydney University, replied on behalf

of the university, and congratulated the hospital on the step taken. It was a very good thing for the hospital to come into connexion with the university, as it stimulated work there. The Sydney Medical School was already beginning to be recognized as one of the important schools in the empire, not only in point of number of students, but in the character of its graduates. He thought that St. Vincent's Hospital might also before long become one of those in which students might receive their clinical training.

Votes of thanks to Dr. Fiaschi for his address, to Professor Stuart, and the President of the Board of Directors, brought the proceedings to a close.

### District Nursing Association.

The report presented to the eighth annual meeting of the District Nursing Association, held under the presidency of Mr. W. P. Faithfull, stated that six fully trained nurses had been at work in the city and suburbs during the past year. Dr. Camac Wilkinson, who had been president of the executive committee for the past eight years, had resigned on going to England, and Dr. C. P. B. Clubbe had been elected in his place. The home account was over £500 in debt at the time of the last annual meeting, but this sum was reduced by some legacies, and the debt had been finally extinguished on New Year's Day by a cheque for £500 from Mr. T. A. Dibbs. The value of the association's work in some districts was acknowledged by those districts paying the cost of a nurse each. The honorary treasurer's report showed that the receipts had been £1,372 15s. 2d., the total expenditure £836 17s. 3d., and that there was £1,042 in hand to carry on work during the coming year. The home at Darlinghurst, valued at £1,390, was free of debt.

### Hospitals for the Insane.

Owing to the overcrowded state of the hospitals for the insane in this State, some additional accommoda is urgently required, and it is proposed to establish two new hospitals in different parts of the country. At the inquiry into this matter by the Public Works Committee of the Legislative Assembly, Dr. Sinclair, the Inspector-General of the Insane, stated that the number of insane patients in the hospitals for the insane on October 31st, 1909, was 5,599, of whom 3,400 were males and 2,199 were females. There was adequate accommodation for only 3,083 males and 1,972 females, so that the accommodation was short of the amount required by 544 beds. Buildings in the form of additions to the institutions at Parramatta and Kenmore, which were contemplated or in course of erection, would provide 137 additional beds, leaving an excess of patients over the accommodation of 407, even if no further addition of patients occurred; but as the asylum population was increasing every year, it would be necessary to make provision for that increase. The average annual increase for the past ten years was 160; at the end of 1908 the proportion of insane persons to the population was 1 to 281, and it was expected that as the population increased the number of insane would maintain this rate quite apart from any increase in insanity in the community. Amongst the causes which tended to raise the ratio of insane persons under official cognizance were the greater confidence shown in the institutions, and the consequent sending of patients earlier for treatment; the growing disinclination of families to care for their helpless and infirm members themselves, and the general objection to permitting persons with peculiar or eccentric habits to be at large in the community—a tendency which had markedly increased in recent years. There would always be acute and curable cases, unrecovered violent and troublesome cases, feeble, helpless, sick, and a residuum of able-bodied industrious but insane patients. The proposed new hospital at Morisset, on the shores of Lake Macquarie, was designed to receive the quieter, industrious patients, while the proposed hospital at Orange would receive and treat acute cases in a mental hospital, and would have wards suitable for the more troublesome and difficult of unrecovered patients, as well as for the feeble and sick. These two new hospitals would be erected ward by ward, as necessity for additional accommodation arose, and would together be able to deal with all classes of patients, which either alone would be incapable of doing.

### The Fisher Library, University of Sydney.

The Fisher Library within the University of Sydney has been completed at a cost of £72,000 after seven years of continuous work. Building operations were commenced on January 23rd, 1902. The basement is of hard stone, and the upper portions are of the best Pyrmont freestone. The designing and construction of the roof itself were matters of great consideration. To adopt fan-traceried stone groining was out of the question, on the ground of expense; but the hammer-beam roof was adopted in its place, constructed of the fast disappearing cedar of the east coast of Australia. The roof timbers of the Great Hall of the university, built in 1860, are constructed of cedar to a limited extent, probably, as Mr. Vernon, the Government architect, says, owing to the fact that fifty years ago facilities did not exist for obtaining logs of sufficient dimensions; and now, fifty years later, although the facilities exist, the supply is all but exhausted. But every part of the Fisher Library roof, which cost approximately £9,000 to place in position, is of solid cedar. It was obtained from the almost inaccessible gullies of the far northern ranges of Queensland. The type of roof adopted is that of Westminster Hall, and the Fisher Library stands second only in span to that of Westminster. The reading-room itself is a spacious apartment, and immediately adjoining it is the fire-proof book stack, seven stories in height, entirely in steel, with glass and marble floor and ceilings, all of local manufacture, and designed to contain 240,000 volumes. The ground floor beneath the reading-room contains the spacious museum intended for the housing of the Nicholson collection, while in the basement there is a refectory and common room for students. It is interesting to note that this library is named "Fisher" after the generous donor of some £25,000 for the purpose of founding a library. Mr. Fisher is said to have been a bootmaker in Sydney, but history does not record how he amassed his fortune. The balance of the money required to complete the building was provided by the Government.

# Special Correspondence.

## PARIS.

*Death of Professor Brissaud: M. Arloing on Vaccination against Bovine Tuberculosis: Inauguration of Monument to Péan.*

The medical profession in France has suffered a serious loss by the death, on December 19th, 1909, at the age of 57 years, of Dr. Edouard Brissaud, Professor of Internal Pathology. His health had not been good for the last twelve months, but suddenly, a month ago, he was seized with violent pain in the head. Sir Victor Horsley, who came to Paris, agreed with his French colleagues, and performed an operation *in extremis*. Edouard Brissaud was born at Besançon, and studied medicine in Paris. He became interne of the hospitals in 1875; in 1878 he was *préparateur* in Charcot's Laboratory of Pathological Anatomy; he became *médecin des hôpitaux* in 1884, and *professeur agrégé* in 1886. At that date he began to lecture, and during the vacations took Charcot's place in the Clinical Chair of Nervous Diseases at the Salpêtrière. At Charcot's death he provisionally filled the chair (1893–4). In 1899 he was appointed Professor of the History of Medicine, and in 1900 he became Professor of Internal Pathology. Although he was best known for his work in neuropathology, he nevertheless did good work in all branches of medicine. In 1893 he founded, with Pierre Marie, *La Revue Neurologique*. He was the promoter of the large *Traité de Médecine* (Charcot-Bouchard-Brissaud), of which the second edition in ten volumes appeared 1888–1905. Professor Brissaud was a member of the

Académie de Médecine and of numerous scientific societies in France and abroad. The funeral took place on December 23rd, 1909, and was largely attended. By the expressed wish of the deceased, there were no flowers or orations.

At a recent meeting of the Académie des Sciences M. Arloing made an interesting communication on the result of the series of vaccinations against tubercle in cattle which he has carried out since 1902. The vaccines employed were fixed varieties of human and bovine bacilli; these varieties, not causing any appreciable lesions, were powerless to cause any harm to the animals vaccinated, and were without danger to the operator. The immunity thus artificially created was tested by inoculations of extremely virulent bovine bacilli; the experiments were controlled by similar injections given to non-vaccinated animals, both series being finally slaughtered and subjected to minute *post-mortem* examination. M. Arloing obtained the following results on 60 vaccinated animals and 30 control animals:

| *Vaccinated Animals.* | Per cent. | *Control Animals.* | Per cent. |
|---|---|---|---|
| Complete success ... | 50 | No infection ... ... | 9.2 |
| Relative success ... ... | 25 | Partial infection ... | 27.2 |
| Failures ... ... ... | 25 | Complete infection ... | 63.6 |

Measuring the degree of infection in the failures and the partial infections, the lesions appeared six times more serious in the control than in the vaccinated animals. Intravenous vaccination gave the best results—75 per cent. of successes; vaccination by ingestion gave 50 per cent. successful results; while the subcutaneous method gave 10 per cent. of entirely successful and 73 per cent. of partially successful results. M. Arloing concluded by saying that the experiments justified the use of vaccination, associated with the usual prophylactic measures, to diminish the ravages caused by bovine tuberculosis.

The statue which has been erected to the memory of Dr. Péan, the celebrated surgeon, was unveiled by M. Fallières, the President of the French Republic, on December 16th, 1909. The monument is placed on the Boulevard du Port Royal, opposite the entrance to the Rue de la Santé, in which street is the Hôpital International, which Péan founded and where he used to operate. After the unveiling of the statue, the company went on to the amphitheatre of the hospital, where speeches were made, Professor Pozzi handing over the gift to the City of Paris. A demonstration was made by Royalist students, *les Camelots du Roi*, and many of them were arrested.

# Correspondence.

## THE BRITISH MEDICAL BENEVOLENT FUND AND GUILD.

SIR,—The tragic fate of Dr. Wells of St. Mary's Hospital, whose death last October at the age of 30 years was caused by contracting glanders in the exercise of his duties, aroused the sympathy of the public, and has drawn attention to the dangers to which all medical men are exposed in the pursuit of their profession. Accident or disease may cut short the career of a medical man, or other adverse circumstances may prevent him from making any provision for old age, so that he himself and those dependent upon him may be left in actual want, and even encumbered with debt. Speaking at a meeting in support of the fund held at the Royal College of Physicians in February last, the Bishop of Oxford said: "I do not think there is any profession in which a man is compelled, without any choice of his own, without any chance of escape, to run so great a risk of inevitable impoverishment for himself and for his family. He really risks his all upon his health. To meet such contingencies the British Medical Benevolent Fund was instituted in the year 1836 (1) to make grants of money to distressed members of the medical profession, their widows or orphans; and (2) to provide annuities for such after they have reached the age of 60 years. During these 73 years the Fund has expended £70,000 in grants, and rather more than this sum in annuities. At the present time the Fund is supporting 126 annuitants who receive from £20 to £26 a year each, and in addition makes grants to others not yet eligible for annuities, spending in this way an aggregate of nearly £5,000 a year, the working expenses being under 6 per cent.. Yet the demands upon the Fund far exceed its resources, and much-needed help has frequently to be denied to applicants approved by the committee.

A Woman's Guild has recently been established in connexion with the Fund to supplement the money grants of the Fund by gifts of clothing and coals and other additional comforts, and, by personal service, to add a warmer touch of human sympathy.

At the meeting above referred to, the Lord Mayor of London, after drawing attention to the economic value of the services of the profession to the State and to the community, whether in general practice or in hospitals or in the departments of public health and preventive medicine, asked: "What has the State and what has the public done in return?" "I think very little," he added; "and it appears to me that the public requires calling to its duties in this respect."

The Fund gives money which has hitherto been mainly supplied by the profession itself; the Guild will give money's worth. For Fund and Guild alike increased support is needed, and in behalf of both we plead, and fain would trust that the public will not fail to recognize its obligation to the medical profession by a liberal response to the appeal which we now make.

Subscriptions and donations for the Fund may be sent to the Treasurer of the Fund, 15, Wimpole Street; and for the Guild to the Secretary of the Guild, 100, Harley Street, by both of whom further information will gladly be supplied.—We are, etc.,

For the guild:
ADELINE M. BEDFORD.
KATHERINE WESTMINSTER.
E. BROADBENT.
MAY THORNE.

For the fund:
R. DOUGLAS POWELL.
HENRY T. BUTLIN.
WILLIAM S. CHURCH.
THOMAS BARLOW.
JOHN TWEEDY.
SAMUEL WEST.

December 28th, 1909.

## RESEARCH DEFENCE SOCIETY.

SIR,—In view of the General Election, we desire to call the attention of all Parliamentary candidates to the work of the Research Defence Society. It was founded in January, 1908, to make generally known the facts as to experiments on animals in this country, and the regulations under which they are conducted; the immense importance of such experiments to the welfare of mankind, and the great saving of human life and health which is already due to them. We hope that all candidates for Parliament, who may desire to acquaint themselves with these facts, will communicate with the Honorary Secretary, Research Defence Society, 70, Harley Street, W. He will be happy to supply them with literature, and to answer all inquiries.

We would also remind them that the Royal Commission, though it has published all the evidence, has not yet published its final report and recommendations to Government; and we hope that those candidates who may be unable, at present, to declare themselves in sympathy with our society, will at least preserve an open mind, till the report has been published.—We are, etc.,

CROMER,
President.
SYDNEY HOLLAND,
Chairman of Committee.
F. M. SANDWITH,
Honorary Treasurer.
STEPHEN PAGET,
Honorary Secretary.

London, W., Dec. 26th.

## PRISON DOCTORS AND THE HOME OFFICE.

SIR,—I do not suppose many members of the Association will be deceived by the terms of Dr. Donkin's letter, which purports to be a correction of your leading article of December 18th, 1909.

Some, however, may not be aware that a disgraceful attempt is being made by the Home Office, from the Home Secretary down to Dr. Donkin, to put the responsibility of this repulsive treatment of political prisoners on to the shoulders of the medical profession. It is useless for Dr. Donkin to repeat the attempts he has been making in

the *Times* to maintain this imposition, for, as you indicate, the whole status of the Home Office was clearly and frankly related by the Under Secretary, Mr. Masterman, in the House of Commons, and is recorded in *Hansard* (q.v).

Dr. Donkin's suggestion that the responsibility of forcibly feeding suffragettes by the nasal method rests on the medical officers of prisons is as incorrect as the judge's suggestion (in his question to me) that the doctor did it to "save the prisoner's life"!

As may be seen by reading between the lines of Dr. Donkin's letter, this treatment of his political opponents was ordered by the Home Secretary and no one else, though we understand from Mr. Masterman's statement in the House that Mr. Gladstone's action received the concurrence of the Prison Commissioners, one of whom is Dr. Donkin. In his final sentence he alleges that his junior colleagues, the prison officers, who he amiably holds up to the public as the ingenious executioners of this practice, "always act, in the not very infrequent cases of forcible feeding, without any reference to superior authorities, and merely record the event in their journals." This, Sir, coming from one who admits he was present in court during the trial, Leigh *v.* the Home Secretary and others, is a deliberate distortion of the facts as bearing on the issue, namely, the forcible nasal feeding of suffragettes.

So far from these cases being "not infrequent," the Birmingham officer, who had also had an extensive experience of prison service in Wormwood Scrubbs, could only recall one case in which he had done it for some time, namely, the case of a "powerful foreigner," a criminal. As Dr. Donkin did not enter the witness-box he was not called upon to justify his assertion, which, though considered by him to be good enough for our JOURNAL, has the grave demerit of not being a fact. Precisely the same flat contradiction must be applied to his statement that the prison officers carry out this "treatment," as the court termed it, "without any reference to superior authority."

Dr. Donkin must have heard the Birmingham officer swear the exact opposite in court. That the local prison officials were in constant direct reference to the Home Office was also sworn to by the governor of the prison, as well as admitted by Mr. Masterman last September.

Dr. Donkin, unfortunately, is not the first medical official who has disloyally helped to thrust on his profession, and on its work, the odium which happens to follow an act of a responsible Minister.

We may always rely on our JOURNAL to repel such base attacks from within, but the case of Leigh *v.* the Home Secretary contains more questions than those discussed in your leader, and the profession will have to consider, among others, under what circumstances they will, at the bidding of a Minister, perform operations upon prisoners who refuse to undergo the same.—I am, etc.,

London, W., Dec. 25th, 1909. VICTOR HORSLEY.

## FORCIBLE FEEDING.

SIR,—I was continually present at the feeding of the suffragettes in Birmingham Prison, and think it right to reply to Dr. Kirby's letter in your last issue.

As forcible feeding has been employed for years past, under various circumstances, is it not surprising that any medical man should stigmatize it as "cowardly and disgusting," even if it is to a self-starving suffragette that it is applied? The fact that good and attractive food was continually offered to them seems to be lost sight of. I am chiefly concerned, however, with Dr. Kirby's "few facts."

Most of the weight lost by Miss Laura Ainsworth was lost during her period of total starvation in the first few days of her imprisonment, and the whole of it was due to her persistent refusal of food. Her voice was not more "weak and husky" when she left the prison than it was when I saw her before forcible feeding was commenced.

"The doctors failing in their attempt to *force* the tube through" implies a charge which is not justifiable. No force whatever was used. As soon as the obstruction was found the attempt was abandoned. She was fed on four, not seven, occasions by the oesophageal tube, the last being seven days before her release, and during those seven days she made no complaint or suggestion of sore throat. As no trouble was ever experienced in the actual passing of the tube, there is no reason why any sore throat should have been produced by it. Although Miss Ainsworth has stated elsewhere that she did mention to me, the evening before her discharge, that her throat was sore, this is contrary to my recollection. Had she so complained in my hearing I would certainly have investigated the matter. Taking, however, Miss Ainsworth's own statement, the soreness of the throat was only mentioned on this one occasion, six days after the last passing of the tube. Yet Dr. Kirby describes her condition floridly as suffering from pharyngitis due to the "irritation of the tube."

Dr. Kirby states that Miss Hilda Burkitt was very weak when she left the prison. She certainly was very weak after her second hunger strike, but was nursed back to strength (her diet then consisting of fish, chicken, beef-tea, etc.) with such good effect that she told us before leaving the prison that she used to amuse herself by waltzing round the small ward, which has a polished floor, where she was located alone. She also said she felt fit to tackle ten policemen, but this may possibly have been an exaggeration.

Dr. Kirby believes Mrs. Leigh's vomiting was due to the irritation of the pharynx by the nasal tube. Had this been so it would have occurred immediately. As a fact, it never happened until ten minutes after the feeding and frequently was delayed for half an hour. Surely pharyngeal irritation is the least likely explanation of this and is also the least likely explanation of the stomatitis which he found at the back of a carious incisor tooth! Although vomiting did not occur until late in her imprisonment, Dr. Helby recorded, on the fourth day after her reception, that he feared this complication in her particular case. Of the nine suffragettes, Mrs. Leigh was the only one released on medical grounds. So far from being in the desperate condition on her release that one would infer from Dr. Kirby's description, Mrs. Leigh dressed herself rapidly, walked briskly a distance of about 130 yards to the prison gate, where she gave some final trouble, standing and arguing with the officials before entering the cab which was waiting to take her to her friends.

Dr. Kirby says Miss Selina Martin was suffering from dyspepsia aggravated by her imprisonment. She made no complaint of having dyspepsia while she was in prison, nor was any indication of this discovered at any time by Dr. Helby or myself, nor did the consulting surgeon who examined her the day before her discharge do so. She may have had dyspepsia after her release; in fact, this could only be expected if the return to normal diet, in one who had taken no food for six weeks except through a tube, were not judiciously graduated. In this case also Dr. Kirby states he found a "considerable abrasion" of the mucous membrane of the nose. It seems very unlikely that a "considerable abrasion" could be produced without drawing some blood. Not a drop of blood was drawn at any time, nor did the patient ever give any indication of having pain. Indeed on several occasions she passed the tube herself, and always said she felt very well.

I am glad to observe that these ladies "all agreed that the treatment had been as careful and humane as possible." I am pleased to hear at last a public acknowledgement of this from that side, as I was daily impressed with Dr. Helby's patience with prisoners whose obstructive methods were certainly very trying.

Referring to Dr. Kirby's recommendations: Feeding by tube was, of course, only resorted to when, owing to the resistance of the patient, feeding by means of a cup was found impossible. In any case, cup-feeding is the most exhausting form to a determinedly obstructing patient.

It is noteworthy that each of these ladies immediately prior to her release expressed her intention of resuming "militant" political action. None of them, apparently, had any intention of entering a nursing home. I agree with Dr. Kirby that they have shown remarkable courage, but am afraid that his sympathies have somewhat obscured his judgement and led him to discover ailments of which the patients themselves were apparently unconscious.—I am, etc.,

WILLIAM CASSELS, M.B., C.M.

Birmingham, Dec. 28th, 1909.

## PROPOSED LEGISLATION ON ANAESTHETICS.

SIR,—As Dr. Joyce points out clearly in the JOURNAL of December 18th, 1909, p. 1782, the hands of the general practitioner are to be further tied by another clumsy piece of

legislation evolved by the General Medical Council, and much needless suffering will thereby be inflicted on parturient women if practitioners are to be forbidden to give a whiff of chloroform when exhausted Nature can bear no more.

The poor positively cannot pay the extra fee required if another man must be called in to administer an anaesthetic, for the yearly increasing number of women who for lack of means employ midwives shows that the poor take a risk to save their pockets.

What is the meaning of "due provision being made for cases of emergency"? Does this mean that one must carry an electric battery, a cylinder of oxygen, and a lot of other appliances for cases of emergency? Or does it mean that the State is at last realizing its responsibilities towards the nation's poor and is about to make provision for their being attended under a more intelligent and humane system than the present condemned Poor Law system?

Further, there still remain among my own patients 10 per cent. who, having some sense of shame, do not take their males to hospitals for circumcision. These little operations I have done generally alone, and at a less fee than I would have the hardihood to offer to an anaesthetist; thus I have saved a remnant from becoming paupers, and also taken my legitimate earnings. It now means 100 per cent. instead of only 90 per cent. paupers, and the statistics of the Howard Association in Scotland this year show how pauperism and crime march hand in hand.

With the Midwives Bill still unsettled it is surely evident that general practitioners must formulate measures themselves which are ultimately to bear on their own future conduct.

If the members of this Association only knew their power, and realized what an efficient instrument they have in their hands for putting their wishes into execution, they would not tolerate this vicarious legislation for a day longer. The slight influence of five direct representatives against twenty-nine men, who have shown that they cannot in the remotest degree appreciate the position of the general practitioner, has shown the present system to be a total failure.—I am, etc.,

London, S.W., Dec. 23rd, 1909. JOHN FLETCHER.

## INDICATIONS FOR IMMEDIATELY OPENING THE ABDOMEN IN ACUTE CASES.

SIR,—Mr. W. G. Spencer, in the course of his paper on this subject published in the BRITISH MEDICAL JOURNAL of December 25th, 1909, makes some instructive and pertinent remarks, but I cannot pass without criticism his views on appendicitis. Mr. Spencer's definition of this disease appears to me to be too limited and to be fundamentally wrong in including only those cases in which the peritoneum is involved. In defining appendicitis he maintains that no symptoms show themselves until the peritoneal coat of the appendix is reached, so that the *symptoms* of appendicitis are those of infective peritonitis. This view is certainly not accepted by many eminent physicians and surgeons, some of whom regard the term "appendicitis" as including any inflammatory pathological condition in the appendix, even though this can only be determined by microscopic examination.

Mr. Spencer is evidently an enthusiast in the school of early operators, and scoffs at the idea of medical treatment for appendicitis. Many have, however, never been able to accept the view that immediate operation is called for in every case. In the first place, by this early operation some cases are almost sure to be operated on unnecessarily; and is operation under such circumstances justifiable or sound surgery? In the second place, operation during the acute stage is not without risk, and the patient may be caused unnecessary suffering if his life is not actually endangered.

Those who advocate expectant measures in appendicitis admit that certain cases require prompt surgical treatment. For instance, no one will deny that early operation is the only safe course in fulminating cases, or in cases of appendicitis with perforation, gangrene, etc. A large number of cases, however, will recover under expectant treatment, and then the question of removal of the appendix in the quiescent interval can be discussed. Operation at this period is practically without danger, and the mortality is almost *nil*. Mr. Spencer gives the mortality-rate of early operation cases as less than 5 per cent., presumably between 4 and 5 per cent. Unless the advocates of early operation can produce more flattering figures, they need not be surprised if their statistics are made use of in arguing against early surgical interference.

While I view the subject differently from Mr. Spencer in many ways, there is one important point, at any rate, in which I am in cordial agreement with him, and that is his insistence on the greater urgency for operation in children.

Speaking of hernia cases, Mr. Spencer points out that occasional vomiting should not be too lightly regarded—a statement which I can heartily endorse. I remember the case of a woman who sent for her medical attendant because of sickness and vomiting. The doctor was very busy and merely sent her a bismuth and soda mixture. When he saw her next day he found a strangulated inguinal hernia, and he at once made arrangements for having her surgically treated.

In adding my testimony to Mr. Spencer's remarks regarding abdominal injuries, I may say that there may be severe internal injuries without any marked symptoms. A cart wheel may pass over a man's abdomen, and there may be no external marks, there may be no marked pain or tenderness, and there may be little shock. Yet these cases must be most carefully watched. I can recall the case of a man who actually met with this accident, but who was able to walk into the out-patient room of a hospital. Though there was apparently little the matter with him he was detained. About one and a half hours later he developed serious symptoms, and died within half an hour. A *post-mortem* examination was not permitted, so that it could only be assumed that there had been severe injury to one or more of the abdominal viscera.—I am, etc.,

Edinburgh, Dec. 25th, 1909. J. ALLAN.

## THE PHYSICAL SIGNS OF INCIPIENT PULMONARY TUBERCULOSIS.

SIR,—Dr. D. B. Lees, in his paper in the JOURNAL of December 11th, 1909 (p. 1659), has done a useful service in insisting once again on the value of the distribution of the lesions in the diagnosis of phthisis. There is, however, a pitfall of which he gave no warning, and into which his paper may well lead the unwary. Dr. Lees directs attention to "Dullness and lessened air entry at the four apices" of the lungs (that is, the apices of the upper and lower lobes) as a sign of incipient pulmonary tuberculosis, implying that at the earliest stages signs may be found in *both* intrascapular regions. Now it is easy to determine impairment on *one* side (and this is, in my experience, the common find in a fairly early case) by a comparison with the other, but if the percussor travels down each side of the back in the intrascapular region he will find a distinct area of impairment in the healthy extending for about three fingerbreadths from the scapular spine downwards. This is due to the two rhomboid muscles as they cross from the vertebrae to the scapular border, and in a muscular subject the percussion note may be greatly changed. These dull areas in the healthy correspond fairly closely with the common locality of tuberculous deposit in this region, and may readily be taken by a student of Dr. Lees's paper for a double tuberculous lesion confirmatory of some doubtful signs discovered at the apices of the lungs. The likelihood of such a mistake has prompted the present letter; in my own experience the signs appear at the points of election in phthisis in a more gradual sequence than Dr. Lees's paper suggests, and I have not had the good fortune to find them at four separate centres at a really early stage.—I am, etc.,

London, W., Dec. 19th, 1909. CLIVE RIVIERE.

## A NATURAL EXPERIMENT IN CARDIAC STRAIN.

SIR,—Dr. Clive Riviere and Dr. Lloyd Jones appear in some measure to have misunderstood me. I did not intend to imply that the deep cardiac dullness cannot be marked out by percussion in children. My contention was that it is extremely difficult to define slight alterations in the area of dullness, at least by the majority of observers, especially

when only such a blunt instrument is used as the finger placed upon the chest affords. Dr. Clive Riviere speaks of the accuracy with which deep cardiac dullness can be defined in the *post-mortem* room. In this statement I agree, but the percussion note over the lungs becomes much more resonant some hours after death than it was during life, and consequently the comparative dullness over the heart stands out more clearly.

Since slight increase of dullness appears to me to be difficult to determine, I expressed the view that the appearance of murmurs is a more reliable guide to the presence of dilatation. Dr. Clive Riviere thinks that the murmurs to which I refer may be exocardial. I have been familiar with the frequent presence of exocardial murmurs since the days that I was a medical student. I do not think it possible that any one who has any degree of sensitiveness for the character of sound can—except in rare instances—mistake an exocardial for an endocardial murmur.—I am, etc.,

December 14th, 1909. THEODORE FISHER.

## THE PREPARATION OF SOURED MILK.

SIR,—I have read with interest Mr. Ernest Quant's remarks of the preparation of lactic acid bacilli and sour milk treatment in the BRITISH MEDICAL JOURNAL of December 18th, 1909, p. 1738, and I can absolutely confirm most of his observations from personal experience. I have been working at the matter from the dietetic standpoint during the past year, and have, like many other medical men in all probability, been disappointed with the results obtained with the different lactic acid tablets on the market; also with the comparative uselessness of the simple apparatus sold with these tablets for preparation of the sour milk. With any of these in our climate it is next to impossible to keep the temperature from varying considerably, and especially from falling below that at which the optimum growth of the bacilli and formation of the acid takes place. I have tried almost all the tablets on the market, and one liquid culture sold in small tubes. This last, on the whole, was best, but almost prohibitively expensive. I have now adopted the use of milk cultures, and find with a temperature of 108° to 110° a very pleasant curdled milk is obtained in about five hours. I use a small portion of the curd of the previous day—about a salt-spoonful suffices.

I have replaced the simple tin apparatus and night light by a wooden box about 2 by 2 by 3 ft., lined with asbestos and fitted with a metal tray, sliding out, and placed over two 8 candle power electric lamps, with the thermometer passed through the top of the box, as in a bacteriological oven. The front side of the box falls down by means of a hinge, allowing the removal of the metal tray, which will hold some thirty glasses of milk. The front is fitted with a little sliding door about 2 in. by 8 in., and by means of this a supply of cooler air is regulated to keep the box from getting too hot.

This apparatus was made for me by a joiner, is inexpensive, and serves for the culture of any germs on suitable media.

I think Mr. Quant's note is of great value, coming at this time, and should lead to fresh endeavour in this matter by medical men who have thrown up the use of sour milk in disgust.—I am, etc,

Peebles, Dec. 20th, 1909. THOMAS D. LUKE.

## MAJORITY REPORT ON THE POOR LAW IN REFERENCE TO VENEREAL DISEASE.

SIR,—There are some recommendations in the Majority Report dealing with venereal disease which, if followed, must inevitably do harm.

The Commissioners suggest that certain types of sick cases should be compulsorily detained (see vol. i, p. 354). Amongst these are: (1) Persons suffering from phthisis; (2) persons suffering from venereal disease. Yet ultimately they advise different treatment for these two diseases: for phthisis they recommend "diffusion of knowledge of its dangers"; for venereal disease they recommend compulsory detention.

The reasons given against compulsory detention of phthisis seem equally to apply to venereal disease: (1) "The duty of a doctor or magistrate deciding a dubious scientific point which is to involve the question of a man's detention or freedom." (2) "The necessity in many cases of detaining them for some considerable period." (3) That "concealment of the disease will be encouraged, and to that extent it will be less possible to attract patients for treatment at the earlier and curable stages." They recommend "that meantime the spread of phthisis must be checked mainly by a wider diffusion of the knowledge of its dangers and of the means of its prevention and cure."

But as to venereal disease, they say, "we consider that an order for detention should be obtainable whenever sufficient proof is adduced that an individual suffering from venereal disease is in such a condition as to be a danger to the community amongst whom he is living. . . . Though the knowledge that the local authority had power to obtain an order for detention might occasionally lead to concealment of the disease, in our judgement the benefits of compulsory detention far outweigh its evils. . . . Infringement of the liberty of the subject is the foundation of all recent legislation dealing with infectious diseases of a dangerous character."

The above suggestions only refer to poor persons, and even if there were no concealment the disease would continue to be spread by the people who were not called "poor." Also in deciding just when and for how long venereal cases should be detained there would be the same difficulty as in phthisis, they would have to be detained often longer than phthisis, and concealment would be most probable, as shown from past history. In Christiania,[1] after the abolition of regulation in the year 1888, syphilis declined in frequency because the number of girls who applied for treatment increased; they had previously concealed their illness.

The Commissioners urge "infringement of the liberty of the subject." This would undoubtedly lead to much concealment of the disease. The "Committee of Fifteen," who were instituted for the study of prostitution in New York, say in their report: "Men with political insight are of opinion that every limitation of the freedom of the individual is in itself an evil, except where the good derived from the infringement can really be estimated at a very high valuation." Public opinion would never allow infringement of the liberty of the rich; in phthisis one could understand that the more wealthy classes would be less likely to spread the disease, but this is not necessarily so in syphilis and gonorrhoea.

It would seem more reasonable to endeavour to diminish venereal disease by a wider education among boys and girls who have reached the age of puberty, by lectures dealing with normal sexual physiological processes, as well as the consequences which may follow indiscriminate sexual intercourse. A full knowledge of things is surely better than the unhealthy fragments which many pick up from their companions. Parents, no doubt, might do more than they have done in speaking of these things to their children when they reach the age of puberty. Lectures by medical men and women might be arranged to be given to boys and girls before they leave school.

Professor Osler, in a lecture at the London Hospital on "Syphilis and Aneurysm,"[2] made four excellent suggestions for restraining the ravages of syphilis: (1) A wholesome and healthy education of our youth in matters sexual; (2) a special police force of men and women to clear the streets and places of public amusement from the open, flagrant whoredom; (3) that every venereal case should be known, registered, and supervised; (4) that facilities for early and prolonged treatment should be everywhere increased.

It is perhaps questionable whether venereal cases would care to be registered! It might lead to concealment unless the register was kept purely for the information of the medical faculty.—I am, etc.,

Oxford, Dec. 2nd, 1909. H. T. GILLETT, M.D.Lond.

## PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—There are many who will endorse every word of Dr. Belilios's letter in the JOURNAL of December 25th, 1909, p. 1828.

As a matter of fact, steps are already being taken to associate, "in the interest of the the public health," some

[1] Iwan Bloch, M.D., *The Sexual Life of our Time.*
[2] BRITISH MEDICAL JOURNAL, November 27th, 1909.

at any rate of the eleven hundred odd general practitioners in England and Wales who are medical officers of health.

I may add that the Richmond Division, amongst others of our Association, has taken steps to secure the reconsideration of the now famous minute of the Belfast Representative Meeting.

There is no doubt that, unless a more tolerant attitude is assumed towards those general practitioners who hold public appointments, the solidarity of the Association will be in some jeopardy.

Professional unity may well be exercised to secure a minimum wage or tariff, but it is only trade unionism that seeks to handicap ability and experience. If we practise trade unionism our calling will become a trade; if we promote professional unity we shall deserve, and retain, the recognition which we are in danger of losing.—I am, etc,

London, S.W., Dec. 25th, 1909. F. G. CROOKSHANK.

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SIR,—I am pleased to see Dr. David Belilios's letter in the JOURNAL of December 25th, 1909, p. 1828, but had no idea that the British Medical Association was so distinctly antagonistic to part-time officers.

I should be very glad to join him in any combination for our protection, and think that the Poor Law officials and public vaccinators would be very likely to join also, as they too are threatened; and doubtless the "profession" in its wisdom will push them overboard to sink or swim as best they may.

It is odd that the profession cannot learn that to disintegrate the "body" will damage the "unit." If we could only realize that the practitioners should hold *all* offices which are compatible with their private work, and leave as few to whole-time officials as possible, it would be better for the profession.

Once the general practitioners have lost the public offices, they will have the "public service scheme" just issued by the Association to fall back on; then good-bye to all practice (private), for it will be the death knell of the general practitioner.—I am, etc.,

HENRY EDWARD GOUGH.

Northwich, Cheshire, Dec. 26th, 1909.

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## THE PROFESSION AND THE STATE.

SIR,—It is often stated by your correspondents that it will be a bad day for the medical profession when they are paid by the State. Have these correspondents duly considered that in all countries where a system of State insurance has been adopted the whole community is not included, but only those earning less than £2 a week? Have they at the same time reckoned how much is being paid to medical men by those earning less than that sum in this country? In some of the smaller towns and rural districts I admit they are paying as much and possibly more than they can well afford. In most of them it is otherwise, while in the large centres of population, where admission is readily obtained to hospitals and medical orders are given by relieving officers practically without any inquiry into the patients' circumstances, the amount paid for medical attendance is practically *nil*. Under a State system the amount, though it may be small, is at least definitely assured. Further, be it noted that when a line of this sort is drawn no provision is made for those excluded by reason of their income from the benefits of State insurance, and they are thereby compelled to pay for medical attendance in the ordinary way.

There does not appear to be now the slightest doubt that whatever party in the Government is in power, State insurance is in the near future. Would it not then be better instead of resisting the inevitable that medical men should put their house in order and see to it that the best possible bargain is made with the State, not only in securing adequate payment for work done, but freedom from the control of county councils and outside bodies? This freedom had long been maintained in Germany, and though in recent years it has been threatened, it will still probably be maintained by the united and powerful efforts of the Leipziger Verband.—I am, etc.,

Greenwich, Dec. 27th, 1909. J. H. KEAY.

## THE RELATIONS OF THE LAITY AND THE MEDICAL PROFESSION.

SIR,—I have read with interest Mrs. Hodgkinson's not unsympathetic curtain lecture to the medical profession, and in case other and abler pens than mine have not thought it worth while to reply, I offer a few remarks.

The first part of Mrs. Hodgkinson's article is taken up principally with two points—one that the medical profession do not take the trouble to seek for the causes of the afflictions of their patients, and the other that they do not inquire into possible faulty habits and diet. I will pass over the suggestion that as a profession we are not zealous in the prevention of disease as being hardly worth a reply. The whole history of medicine and sanitation for the last thirty years cries out against it. But as regards the other two points—speaking from a considerable experience of medical men of all classes of practice, I should say that, with the exception of men doing large club practices when there is often such a press of work that they absolutely have not the time to go into their cases, the great majority of doctors are very anxious to find out causes, because to find a cause is generally to be on the high road to a remedy, and even looked at from a commercial point of view, it is good business for them to cure their patients as quickly as possible.

I should have thought that up to say two years ago the diet question was rather done to death, and that food faddists were nearly as common in the ranks of the profession as among the laity. There is now a reaction, and many men are inclining towards the opinion which I have strongly held for years—that a man in good health cannot be too careless about what he eats (in quality, not quantity, be it understood). The healthy man in body and mind may follow his natural instincts, and can digest anything down to 10d. nails, provided he does not think about it.

As to fees, I presume that Mrs. Hodgkinson does not think, unless she is well provided with money, that it is necessary to do her shopping in Bond Street, neither would a person of moderate income who was involved in a law suit expect to have the advocacy of Blank Blank, M.P., K.C. Eminent surgeons—like eminent barristers or eminent milliners—are undoubtedly expensive, but any operation can be done in London by perfectly efficient but less well-known men for quite moderate fees; just as I have no doubt Mrs. Hodgkinson could get a most useful and efficient bonnet in Holborn. The value of a thing is, after all, what it would fetch, and one can no more expect in these unsocialistic days Sir Pompey Partington to ask fees of £15 when he can get £100 than one can expect Mme. X. of Bond Street to ask £1 for a hat that she can £5 for. There is no question of charity in the case, for equally useful results can be had for less money. I see no reason why the public should expect to get fashionable surgeons at popular prices.

The monthly payment system and detailed accounts no doubt has its advantages, but Mrs. Hodgkinson must remember that medical men as a class have no clerks, and have, consequently, to make up and send out their own bills. This same sending out of bills is a necessary and disagreeable business, and, personally, I should be extremely sorry to have to do it more than twice a year, and should much prefer to have to do it once only. Occasionally one has to do it; I am attending a man now who asks for his account and pays it at the end of every month. I think he pays me considerably more than he would if he let his account run on for six months, because one often finds at the end of the half year or year that the bill amounts to a sum that one considers more than a patient can pay, and cuts its down considerably.

Mrs. Hodgkinson appears to have an idea of the patient and physician watching the case and discussing the symptoms and treatment together. I am afraid little would come of this, as it is hopelessly impossible for any one, without a preliminary training in anatomy, physiology, and pathology, to have the remotest idea of the purport of symptoms.

Still, I am not a fashionable physician, and I am a poor man, and if Mrs. Hodgkinson will consult me about herself I am quite willing to join her in consultation for a reasonable remuneration—say, £2 2s. per hour—but I am afraid it will be waste of money as well as of breath.

As this sounds rather like a self-advertisement, I beg to sign myself—

December 23rd, 1909. ARS LONGA.

## PRESCRIBER AND DISPENSER.

SIR,—The continuance of a discussion which I thought had been closed will, I trust, excuse my again trespassing upon your space.

Dr. F. E. Wynne's letter in your issue of December 11th well expresses the attitude of those practitioners who think that the system of medical dispensing is not above criticism. The difficulties in the way of its abolition are purely financial. I cannot agree with Dr. Shoyer that there is any necessary connexion between the supervision of treatment and the practice of supplying medicines. If otherwise, the case of our Colonies and of foreign countries must be worse than indifferent. We must all recognize the financial obstacle, especially those who, like myself, are not blessed with an opulent *clientèle*.

Unfortunately, medical practice in England, through some perversion of development, has not shared in that process of differentiation which is a sign of advancing growth, and which has characterized its progress elsewhere. Accordingly the primitive close combination of the medical practitioner with the maker and seller of drugs is still maintained, notwithstanding that the multiplied activities of each of these once united callings now justify their disconnexion. Practices continue to be worked on the old system, which as a matter of course is also considered in their disposal. The dispensing of medicines has thus come to be rooted in usage and commercial advantage, and a departure from it is proportionately difficult, otherwise it would not have been endured so long. The physician is pharmacist as well, and this arrangement makes for revenue. It also allows of smaller charges, not wholly in the public interest, without a corresponding decrease in income. Yet there are drawbacks. It tends to encourage the settlement of a greater number of medical men in a given district than would be feasible under another system, and, possibly from this cause, it is accompanied in some poor districts by a kind of professional service which can only be described as sweating. Its warmest advocates will hardly claim for it a highly professional character, and I do not think it is conducive to greater efficiency either in medicine or in pharmacy, but rather the reverse. Still it has become indigenous, and for the reasons already given it seems neither judicious nor fair to lay sudden or violent hands upon it. But to assert that it cannot, or should not, be amended is quite another thing. Hostility to it does not imply hostility to the interests of the general practitioner. The prescriptive method is practically universal in other countries, and if it can be gradually introduced here, beginning (as it has begun) at the wealthier levels, it is not unreasonable to expect that it will ultimately prove both safe and acceptable.

I cannot close without again expressing my agreement with you, Sir, in the very temperate statements contained in your article of August 21st. They did not merit the severe treatment administered to them at a recent meeting of the Chelsea Division. It is to be hoped that the resolution passed on that occasion will find no support from members of the Central Council. I can hardly conceive of any proceeding better calculated to discredit a journal in the eyes of its readers than that it should even attempt to disclaim responsibility for its articles.—I am, etc.,

Highbury, N., Dec. 21st, 1909. B. G. MORISON.

SIR,—I well remember the letters, written long before last August, telling medical men they ought to give up dispensing medicines; but take the country practitioner who lives miles away from a chemist, and a dirty one when you get there; in the name of common sense, is any medical man so situated going to ask his patients to travel to these shops to get their medicines? The practitioners so situated probably did not enter into the controversy, because they were more wisely occupied in their spare time in reading the latest novel, or, still better, in polishing up the stock bottles of drugs, so jealously regarded by those interested. It behoves us to proceed with extreme caution, for who would have thought that, when the "Midwives Act" was under consideration, a time would come when we should render ourselves liable to punishment for attending confinements to which an uncertified midwife had been called in, or at any rate have the onus of proving we did not know she was unregistered (vide JOURNAL, December 11th, p. 1731)?—I am, etc.,

Lechlade, Glos., Dec. 11th, 1909. F. W. PILKINGTON.

## THE TERRITORIAL NURSING SERVICE.

SIR,—I think it would be well if the Territorial Forces Committee would make their views clear on the subject of cottage hospitals to those working under them in the country.

That the nurses should remain in their own hospital was obviously not the intention of the local committee in this county, as I was told that two of my nurses (that is, half the minimum working strength) were all that was required. The situation of the hospital in which they were to serve had not been settled, but it was believed that it would not even be in the county.

I am perfectly ready to place my hospital at the disposal of the authorities for the nursing of wounded Territorials, but if it is to be handed over to the authorities, I should like to know whether the local non-combatant is to be left to die in time of war for want of immediate help in urgent illness.

As far as it is humanly possible to say, my hospital has been the means of saving several lives which would have been lost had the local medical men been compelled to send them as far as the nearest county hospital, and it seems to me to be a choice between nursing wounded Territorials or non-combatants, amongst whom may be the mothers of future Territorials.

If the authorities made adequate arrangements for nursing the wounded it would then only be necessary to avail themselves of the voluntary offers of cottage hospitals as was done in the case of private individuals who nursed officers at the time of the South African war.—I am, etc.,

December 19th, 1909. HALFA.

## DIET DURING SEVERE EXERCISE.

SIR,—I was interested to read the opinion of so experienced an alpinist as Dr. Claude Wilson on the subject of the consumption of water during climbing expeditions. In a work published by Dr. Edmund Hobhouse in 1899, to which I contributed certain portions, the following paragraph occurs. It was founded solely on my personal experience, and at the time I wrote it elicited the orthodox expressions of dissent:

> Headache and vomiting sometimes come on during long expeditions apart from mountain sickness. I believe they may be prevented by proper attention to the digestive organs before the start, and by frequent little drinks of water on the way. The advice not to drink water on the way is bad. The large amount of water both perceptibly and imperceptibly lost by the skin, especially at high altitudes, must be replaced, or the blood will increase in density and become charged with a large quantity of effete matter, of which some of the symptoms are those already mentioned.

—I am, etc.,

Montreux, December 26th, 1909. STUART TIDEY, M.D.

## PROPHYLAXIS OF OPHTHALMIA NEONATORUM.

*A Request for Statistics.*

SIR,—I am endeavouring to collect statistics which may throw some light on the vexed question of antisepsis *v.* asepsis in the prevention of ophthalmia in the newly born. The antiseptic method assumes the possibility of infection in every case, and may be subdivided into germicidal, where an endeavour is made to kill the germ by strong germicides, such as silver nitrate and corrosive sublimate, and into mechanical, where trust is placed in the removal of the germ by mechanical flushing with feeble antiseptics, such as boracic lotion.

The aseptic method, on the other hand, aims at the thorough cleansing of the eyelids before they are opened and the prevention of inoculation afterwards, nothing being put into the conjunctival sac unless there is definite reason to fear infection.

There are many records of statistics of the antiseptic methods, but, as far as I am aware, the only statistics of the aseptic method are those quoted by Sydney Stephenson in his Middlemore prize essay of 1907. Moreover, the majority of statistics on the subject have been obtained from the lying-in hospitals, and there must be a great store of instructive information in the experiences of general practitioners (and of midwives) which has never been utilized.

May I ask any of your readers who are interested for:

1. References to recent statistics.
2. Personal experiences in the use of these different methods.

I will be very grateful for any information sent to me at the subjoined address, and for facility of tabulation I beg to suggest that the following table should be used:

| Method Employed. | Number of Births. | Numbers of Cases of Inflammation within Four Days of Birth.* | | Number of Cases of Injured Eyes. |
|---|---|---|---|---|
| | | Severe. | Slight. | |
| | | | | |

* Details of the bacteriology and probable method of infection will be particularly valuable.

I am obtaining some statistics of this kind from friends in Liverpool, but I venture to ask the hospitality of your columns for this reqeust in order that the scope of the inquiry may be enlarged.—I am, etc.,

A. NIMMO WALKER.

45, Rodney Street, Liverpool, Dec. 22nd, 1909.

### CATHETER LIFE.

SIR,—After many months of catheter life I should like from the vantage ground of personal experience to make a few remarks which may be of use to others.

1. I find that the ordinary flexible catheter may be safely used after two minutes' boiling.
2. The best lubricant in my experience is paroleine.
3. The most reliable method of carrying a catheter for occasional and urgent use is—after boiling it—to wrap it in lint steeped in 20 per cent. of paraform.
4. Absolute abstinence from alcohol (and in my case from coffee and meat) is "the way of (prostatic) peace."

One matter more I would like to refer to. The bladder should not, matutinally, be emptied (sc., relieved, it should never be emptied) until the action of the bowels has taken place, for if it is so relieved independently the bowels may not then urge a busy man to relieve them, and so a form of constipation (from carelessness) may ensue. This is not a fad, but a fact. As to prostatectomy, I may come to that. The indication is, of course, cystic infection. Catheter life is not unendurable, but unless a man has a capacity for taking infinite pains, the sooner his prostate is out the better.—I am, etc.,

December 20th. NUMBER EIGHT.

# Medico-Legal.

### CLAIM AGAINST A CORPORATION.

IN the Belfast Recorder's Court, on November 27th, 1909, a medical man sued the Corporation for a fee of half a guinea for first-aid treatment rendered to a child knocked down by one of its cars. The child was carried to the medical man's surgery by a bystander and accompanied by the conductor. The latter said he had only gone with the child to take its name and address, and denied that he had directed the man to take it to the surgery, or had asked the medical man to attend to it. The Corporation denied liability, and claimed that the action of the medical man in attending to the child was a purely voluntary and humane act. The Court held that the Corporation was liable, and made an order for the payment of the amount claimed, with costs.

Commenting on the case, a Belfast paper pointed out that in its shabby resistance of this very moderate claim the Corporation had shown lack of dignity and consideration, and involved the ratepayers in ten times the original expenditure.

# Medico-Ethical.

*The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee.*

### THE OBLIGATIONS OF A SUBSTITUTE.

SUBSTITUTION.—The case related appears to be one in which the ordinary rule should apply—namely, that a practitioner who sees a patient while acting as substitute for another ought to decline subsequently to accept the same person as his own patient.

### SUPERSESSION.

C. R. sends details of a case in which he was superseded in the attendance upon two cases of pneumonia, and he submits four questions to which, assuming his account of the incident to be correct, we endeavour to supply answers. (1) When B. found that A. was in attendance on S., and had not been asked to discontinue his visits, he should have insisted upon that step being taken at once before he consented to take charge of the case. (2) When asked to visit the other brother B. should have declined, except in consultation with A. or after A.'s attendance upon the case had been terminated. (3) When the facts were explained to B. he might have expressed regret. (4) B. seems to have violated the well-known principle that a practitioner should not assume charge of a case which he knows to be under the care of another practitioner until that practitioner's attendance has been duly terminated.

# The Services.

### THE ARMY MEDICAL REPORT FOR 1908.

A BRIEF notice of this excellent report was published on December 18th, 1909 (p. 1769), and the following reviews some points not then noted:

*Letter of the Director-General.*

In an introductory letter to the Secretary of State for War Sir Alfred Keogh gives a lucid summary of the contents of the volume, and announces a continued improvement in the health of the army both at home and abroad.

The improvement has been observable during the current decade, but has been very marked since 1902, and we cannot but note has thus been concurrent with the better army status and increased sanitary powers granted to the Army Medical Service in recent years.

The decline in the incidence of sickness appears, as has already been stated, in all the chief statistical ratios.

It is shown that the "admissions into hospital" have fallen nearly one half since the decade ending 1898, but this decrease must be freely discounted by the introduction a few years ago of the system—borrowed from the French—of treating slight cases in barracks; it seems to work well, notwithstanding that it is in flat contradiction with the hard-and-fast adage applied to the ailing soldier of former days—namely, there is no middle course between "duty and hospital"!

Probably a better gauge of sickness than admissions is the ratio of "constantly sick," and this has fallen since 1898 from 59.85 to 32.28 per 1,000 of strength both at home and abroad; it actually means a constant effective addition of nearly 6,000 men to the fighting line.

The decline in the annual death-rate is also well marked, but is, of course, subject to yearly fluctuations from recurrent epidemics; thus 1908 was exceptionally unhealthy, owing to the prevalence of zymotic diseases, and the mortality was swollen by 35 deaths from cholera in India, which for some years in the decade had been singularly free from the disease in epidemic form.

Another great gain in effective strength has been the decline in invaliding, especially from India, through the establishment in that country of hill depôts, to which sufferers, and particularly from the malarial cachexias, are sent instead of being invalided to England.

The steady decline in all the chief diseases which have hitherto prevailed in our army, the Director-General states, affords an "encouraging indication of the effects of preventive measures now in vogue in our army," an opinion which will be heartily endorsed.

*Health Statistics of Foreign Armies.*

Appended to the Director-General's letter are a series of tables contrasting the health statistics of certain foreign armies with our own; but we are not prepared, without reservation, to take the figures given at their full face value, because so much depends on the source and methods of compilation of the statistics. For example, the table of annual admissions to hospital per 1,000 of strength are thus stated, from below upwards: Russia 414.9, United Kingdom 428 0, Germany 588.8, France 681.0, Austro-Hungary 826.5, United States 1,172.0. Surely we cannot accept as a fact that the small select voluntary army of the United States is nearly three times as sickly as the mighty conscript hosts of Russia. It seems certain that the statistics have not the same basis. But the contrast between specific diseases seems much more reliable: thus, Russia has—proportionally—seven times as many admissions for enteric fever as we have; the United States heads the line for tubercle of the lung, 4.9, against France 4.3, Russia 2.0, ourselves 1.6, and Germany and Austria 1.4. In cardiac affections we maintain an unhappy predominance, the rate being 6.10, against Austria 6.0, United States 4.98, Russia 3.6, Germany 3.3, France 2.8. The widest contrast of all is in venereal admissions: State regulated Germany 19.3 and France 28.6; unregulated Russia 62.7, United Kingdom 68.4, and United States 167.82!

In the death-rate from all diseases, our army, notwithstanding its large amount of tropical service, happily occupies a middle place as follows: Germany 1.8, Austro-Hungary 2.34, United Kingdom 2.52, Russia 3.13, France, 3.52, United States 5.63.

*Recruiting.*

The report appropriately opens on the portal of admission into the army, on which so much depends. The old difficulties of attaining uniformity in the medical examination of recruits are dealt with. We have often pointed out, though now the fact is apparently forgotten, that previous to 1879 there was no uniformity at all; standard measurements were then not part of the medical examination, but were made in the most haphazard manner by the sergeant-recruiters; since then, greater accuracy in measurements has slowly been attained, and some real approach to uniformity in medical examination has been made. But it is impossible to eliminate the personal equation of the examiner; it is expert work, which varies in different hands; and because it is so we are glad to see that young medical officers are now trained in this all-important duty. Immediately after the Boer war certain recruiting regulations were made too stringent, with the natural result that recruiting fell off; but some of these have been relaxed, and the medical examiner is now allowed more discretion in passing men. In the matter of loss and decay of teeth, it is now admitted that no hard and fast rule can be laid down, and so in other matters of opinion. Altogether we may take it that more uniformity and a higher standard—morally, mentally, and physically—is attained in accepted recruits than in bygone years. Old officers and soldiers casting critical eyes on our soldiers in the streets are fain to admit that, if youthful, they are certainly smart, well trained, efficient looking fellows. The physical training of recruits has, under medical direction, undergone great and rational improvement; formerly, only muscular training was had in view, regardless of strain on the heart, lungs, and internal organs.

*Invaliding.*

Towards the close of the South African war, through wear and tear, the high figure in invaliding of 29 per 1,000 of strength was reached; since then it has steadily gone down, until the lowest on record, 10 per 1,000, was declared in 1908. The fall has affected almost all classes of diseases, except nervous, including mental ailments, which in recent years have curiously increased, not only in our own, but in foreign armies.

*Health of Troops in the United Kingdom.*

Broadly speaking, this, in 1908, was satisfactory. In commands the London, as usual, was the most unhealthy, largely owing to the prevalence of venereal and sore throat in the Foot Guards.

In the report on sanitation in the United Kingdom rapid advances are recorded. The diffusion of sanitary knowledge among all ranks through lectures and by practical instruction by the R.A.M.C., especially at Aldershot, has been attended by excellent results. The teaching of hygiene is now an integral part of army training, and regimental squads are exercised in practical conservancy in camp and quarters. How different from the olden days, when sanitation and conservancy was left to the devices of the regimental quartermaster and his pioneers?

We note with satisfaction that attention is now being paid to substantial improvements in the comfort and convenience of the soldier in barracks, but much remains to be done in the married quarters. The cubic space of 600 ft. a head in barracks is found sufficient in lofty rooms, but the floor area has recently been increased by a few feet in order to prevent the crowding of the men's cots together.

In regard to infectious diseases more attention is being paid to the disinfection of personal effects than to the general fumigation of the room in which cases occur.

*Mediterranean Area.*

The health of the troops in the large stations of Gibraltar and Malta has shown distinct improvement, and the so-called Malta fever has been reduced to a minimum through the prohibition of the use of raw goat's and cow's milk by the troops; and yet, in the face of the great discovery that milk was the cause of this destructive fever, the Secretary for War was recently asked in the Commons whether he would not now remove the prohibition. In Egypt the health of the troops shows distinct improvement; "the most important sanitary measure has been the substitution of the use of a solution of cresol for dry earth in latrines, these being converted practically into portable water-closets." The use of this agent and of kerosene oil in latrines has the great merit of warding off flies.

*South Africa.*

We have still 14,000 troops there, and in every particular their health was good in 1908.

*India.*

The average strength of white troops in India in 1908 was 68,522. The admissions and deaths were slightly higher than in 1907 (but the death-rate in that year was the lowest since 1861), while the invaliding and constantly sick rates were the lowest recorded.

*Enteric Fever.*—The outbreaks and spread of this scourge of India are in the great majority of cases hardly to be traced; the spread by "chronic typhoid carriers" seems to occur less often than at one time expected. As regards inoculation for enteric fever, it is stated: "Generally, it may be said that the attack rate in inoculated men is reduced to rather less than one-half, and the case mortality to about two-thirds of the rates in uninoculated men."

*Cholera* accounted for 43 admissions and 35 deaths; in every instance of an outbreak the disease was prevalent among the natives.

*Malaria* showed an increase in admissions over recent years. Malarial fevers are generally believed to coincide with seasons of excessive rainfall, but this is not absolutely substantiated by accurate statistics from various stations having *plus* and *minus* rainfalls.

*Venereal diseases* continue to decrease from various moral causes, and through the recommendations of the recent conference on such diseases.

*The Conference of Sanitary Officers* held at Poona in December made important recommendations, which when carried out are likely to be of great value.

*Spectacles.*—The use of spectacles by officers or soldiers has long been held as an abomination in the British army, yet such aids to vision have decidedly improved third class shots in India.

*Dispersed Stations.*

Among these Bermuda was remarkably healthy in 1908, as it surely ought always to be, for it has one of the finest subtropical climates in the world.

*Jamaica* was fairly healthy.

*West Africa.*—The Europeans employed in this area comprise Royal Garrison Artillery and Royal Engineer companies, together with detachments of departmental corps, and all suffer from malarial diseases, varying according to locality. It is a remarkable fact that the black men of the West India Regiment suffer as much from malaria in West Africa as Europeans, whilst the West African troops, natives of the country, have much immunity.

*Mauritius* unfortunately continues exceptionally unhealthy, and strong sanitary measures are being taken to cope with malarial diseases.

*Ceylon.*—The health of the small garrison was somewhat indifferent through malarial diseases.

*China.*—South China showed improvement, but was still far from healthy. In North China the conditions were fairly healthy,

*Straits Settlements.*—There was no improvement on the year, although, when the comparison is made with quinquennial averages, there is a considerable decrease. Malarial fevers and venereal diseases were the chief ailments.

A long series of tables and abstracts complete this most instructive volume.

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### SERVICE FOR PROMOTION IN THE TERRITORIAL FORCE.

IT has been decided to allow a medical officer of the Territorial Force to reckon as service qualifying for promotion, under the terms of paragraph 44 of the Regulations for the Territorial Force and for County Associations, any service he may have rendered as a commissioned officer in any capacity (other than as a medical officer) in the Imperial Yeomanry, the Volunteer Force, or the Territorial Force, provided that of such commissioned service only so much shall be allowed to reckon as was rendered subsequent to the date on which he became a registered medical practitioner.

# Obituary.

WE regret to announce the death of BENJAMIN SAVAGE ROBINS of Sparkbrook, Birmingham, which occurred on December 19th, 1909. Mr. Robins was in his 77th year, and was the second son of Mr. John Robins of Dunsley Hall, Kinver, Staffordshire. He studied at the General Hospital, Birmingham. He was House-Surgeon to the late Mr. Oliver Pemberton, and later occupied a similar position at the Wolverhampton Hospital. He became M.R.C.S.Eng. in 1854 and L.S.A. in 1855. He was subsequently in partnership with Mr. John Archer of Deritend. For many years he was Medical Officer and Public Vaccinator for the Aston Union, and for about forty years was a Certifying Surgeon under the Factory Acts. He married a daughter of Mr. Arthur Dabbs of Seckington, near Tamworth, and is survived by three sons and two daughters.

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ON December 1st, 1909, in the family vault in Bradford Cemetery, preceded by a choral service in Heckmondwike Church, where he was churchwarden, and where the service was conducted by the present and late vicar, was laid to rest, amidst general scenes of mourning, the body of HENRY TODD BROUGHTON, M.R.C.S. He was educated at Guy's Hospital, obtained the diplomas of M.R.C.S. and L.S.A. in 1864; shortly afterwards he was appointed House-Surgeon to the Bradford Royal Infirmary. On resigning that post and commencing practice he was elected one of the Honorary Surgeons. He left Bradford a few years after to take over a large practice at Heckmondwike; there he remained to his death at the age of 68. He was Senior Honorary Surgeon to the Dewsbury Infirmary, an institution established about thirty years ago, and M.O.H. for Heckmondwike. Dr. Broughton was an excellent surgeon, performing successfully forty years ago many of the major surgical abdominal operations in cottages before aseptic surgery was so well recognized as it is to-day. His kindness and services were much appreciated by his patients and his friendship by his colleague. He leaves a widow and one daughter to mourn his loss.

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SURGEON-MAJOR THOMAS EGERTON HALE, V.C., C.B., M.D., died at Botterley Hill, near Nantwich, on December 25th, 1909, in his 78th year. He was appointed Assistant Surgeon in the 7th Fusiliers, December 14th, 1854, and in the following year proceeded to the Crimea, and was present at the siege of Sebastopol, and at the assaults of the Redan on June 18th and September 8th, receiving a medal with clasp and the Turkish medal. He was also awarded the Victoria Cross "(1) For remaining with an officer who was dangerously wounded (Captain H. M. Jones, 7th Fusiliers) in the fifth parallel on September 8th, 1855, when all the men in the immediate neighbourhood retreated, excepting Lieutenant William Hope and Dr. Hale; and for endeavouring to rally the men in conjunction with Lieutenant Hope. (2) For having on September 8th, 1855, after the regiments had retired from the trenches, cleared the most advanced sap of the wounded, and carried into the sap, under a heavy fire, several wounded men from the open ground, being assisted by Sergeant Charles Fisher, 7th Royal Fusiliers." He subsequently had medical charge of a field force under Colonel Blunt during the Indian Mutiny, detached from Lahore to the Trans-Indus Frontier during the hot season of 1857. Dr. Hale retired from the service in 1876, and was made a Companion of the Order of the Bath in 1906.

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WE regret to announce the death of M. LÉON MASSOL, Professor of Bacteriology in the University of Geneva, who died suddenly of heart disease on December 2nd, 1909, at the age of 72. Born in Paris, he began life as an engineer, and after going through the Ecole Polytechnique entered the service of the Nord Railway Company. He was a man of middle age before he turned his attention to the study of morbid anatomy. He worked in the laboratory of Cornil and at the Pasteur Institute. He was appointed official bacteriologist to the city of Geneva, and in that capacity made careful examinations of the water supply. In 1894 he established a laboratory for the manufacture of antidiphtherial serum. He also worked at the problem of tuberculosis, and strove to introduce the use of tuberculin among farmers as a test of latent disease. In his laboratory were made the first researches as to the ferment of Bulgarian milk, the use of which has since become so popular. According to the *Journal de Genève*, Massol took cultures of the ferment to Paris, and these gave Professor Metchnikoff the starting point for his researches on the efficacy of soured milk in destroying noxious microbes in the alimentary tract. In 1900 an Extraordinary Professorship in the Faculty of Science was created for him. His lectures were models of lucidity and precision. He remained a thorough Parisian to the end, though he preferred to reside at Geneva rather than return to his native "village" as he fondly called the *Ville Lumière*.

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THE LATE MR. C. R. B. KEETLEY.—Lieutenant-Colonel S. F. Lougheed, R.A.M.C. (ret.), writes from Helouan, Egypt, to express his belief that many senior officers of the Royal Army Medical Corps and a greater number of the retired list will deeply deplore the death of Mr. C. R. B. Keetley, Senior Surgeon to the West London Hospital. "From him," our correspondent continues, "we learnt much at the West London Hospital. He possessed to a high degree the power of imparting surgical knowledge in a concrete form. To see him operate was quite sufficient to become attracted to his particular line of work if one's tendencies lay in that direction. The West London Hospital and its post-graduates will miss his genial personality for many a day. As a friend, his qualities were sterling and his advice sound and to the point."

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THE Women's Medical Association of New York City offers the Mary Putnam Jacobi Fellowship of £160, available for post-graduate study. It is open to any woman graduate in medicine. The fellowship will not be awarded by competitive examination, but upon proof of ability and promise of success in the chosen line of work. Applications for the year 1910–11 must be received by March 1st, 1910, and must be accompanied by (1) testimonials as to thoroughly good health, (2) letters as to ability and character, (3) a detailed account of educational qualifications, (4) a statement of the work in which the applicant proposes to engage while holding the fellowship, (5) examples, if any, of her work, in the form of articles or accounts of investigations which she has carried out. When possible it is considered desirable that the applicant should present herself in person to the committee. All applications should be forwarded to the chairman of the committee on award, Emily Lewi. M.D., 35, Mt. Morris Park West, New York City, U.S.A.

# Universities and Colleges.

## UNIVERSITY OF OXFORD.

*Radcliffe Travelling Fellowship.*

AN examination for a Fellowship of the annual value of £200, tenable for three years, will be held on February 22nd and the three succeeding days. Candidates must have passed all the examinations for the degrees of B.A. and B.M., and they must not have exceeded four years from the time of passing the last examination for the degree of B.M. The successful candidate must before election declare that he intends to devote himself during the period of his tenure of the Fellowship to the study of medical science, and to travel abroad with a view to that study. Papers will be set in physiology, pathology, and preventive medicine, and a subject will be proposed for an essay. There will also be a practical examination in pathology. Any candidate desiring to offer in addition a special branch of either medicine or surgery must send notice of this to the Regius Professor of Medicine, to whom all intending candidates should send their names, addresses, qualifications, etc., on or before Saturday, February 5th.

*Philip Walker Studentship in Pathology.*

The Professor of Pathology gives notice that an election to this studentship will take place in February next. The studentship was founded "for the furtherance of original research in pathology." It is of the annual value of £200, payable quarterly in advance, and is tenable for three years. The student may be of either sex, and need not necessarily be a member of the University of Oxford, nor be legally qualified to practise medicine. While holding office the time of the student must be devoted to original pathological research. The place and the nature of the studies of the student are subject to the approval of the Professor of Pathology, but the student is bound to pursue these studies within the university during at least three terms of the tenure of his studentship. Intending candidates are requested to send letters of application along with three testimonials (one of which should vouch for the candidate's personal character and general education), to The Registrar of the University, Clarendon Building, Oxford, so as to reach him on or before February 14th, 1910. Testimonials ought to be framed with a view to setting forth the candidate's capacities for undertaking research work, and the greatest weight will be attached to those granted by heads of laboratories in which the candidate has worked. Copies of the regulations can be had on application to the Registrar of the University.

*Final B.M. Examination.*

The name of A. F. Sladden was accidentally omitted from the list of successful candidates in Forensic Medicine and Public Health reported recently.

## UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., B.C. (*Part I, Chemistry*).—A. C. Ainsley, Cai.; J. C. Andrews, Joh.; L. W. Batten, Sid. Suss.; A. B. Bratton, Cai.; C. C. Brewis, Down; B. Burnside, Cla.; G. L. Ferguson, Jes.; H. Gardiner-Hill, Pemb.; H. L. Garson, Cla.; E. A. Gibb, Emm.; C. H. Gow, Emm.; E. H. H. Granger, Cla.; E. T. Halnan, Trin.; J. B. Hunter, Joh.; R. W. P. Jackson, Cla.; C. E. Kindersley, Magd.; W. Lambert, Corp. Chr.; E. A. Leak, Trin.; A. D. McLaren, Down.; R. H. Marten, Cai.; K. Masson, King's; T. D. Morgan, Jes.; W. D. Newcomb, Trin.; A. V. O'Keeffe, Sid. Suss.; A. A. Prichard, Cla.; R. A. W. Procter, Cla.; W. Rattle, Joh.; G. E. Seon, Jes.; R. S. S. Smith, Trin.; G. E. Spicer, Trin.; H. N. Stafford, Cai.; E. Watson-Williams, Cai.; W. L. Willett, Trin.

SECOND M.B., B.C. (*Human Anatomy and Physiology*).—K. B. Aikman, Cla.; G. Arnfield, Cai.; H. A. Ash, Pemb.; D. C. G. Ballingall, Emm.; R. E. Barnsley, Trin.; A. V. Boyall, Trin.; E. J. Y. Brash, Joh.; A. E. Brown, Christ's; D. S. Bryan-Brown, Down.; E. N. Butler, Cla.; D. G. Cherrington, Trin.; J. D. Clarke, Sid. Suss.; A. C. Clifford, Emm.; H. A. Douglas, H Selw.; G. D. East, Emm.; B. C. Ewens, Cai.; J. V. Fiddian, Emm.; N. Garrard, Pemb.; J. L. Green, Down.; J. R. Griffith, Christ's; C. Helm, King's; R. Hodson, Pemb.; A. N. Hooper, Emm.; D. W. John, Cla.; C. C. Kerby, Trin.; G. A. Lilly, Cai.; A. R. MacMullen, Cai.; W. C. D. Maile, Pemb.; H. Y. Mansfield, Emm.; F. D. Marsh, Trin.; W. H. Marshall, Pemb.; J. A. Martin, Pemb.; E. J. Nangle, Cai; P. Newton, Cla.; M. W. Paterson, Joh.; R. A. Peters, Cai.; D. V. Pickering, Emm.; S. G. Platts, Cai.; N. P. Pritchard, Trin.; Ff. Roberts, Cla.; R. S. Scott, Cai.; H. N. Sealy, Trin.; D. N. Seth-Smith, Emm.; G. A. Smythe, Emm.; W. S. Soden, Joh.; L. C. Somervell, King's; D. L. Spence, H. Selw.; G. W. Spencer, Joh.; R. Stansfeld, Joh.; H. M. Stephenson, Cai.; A. V. Stocks, Joh.; J. W. Stretton, Cai.; A. L. Sutcliffe, Sid. Suss.; C. R. Taylor, Cai.; W. F. Thompson, King's; P. Verdon, Jes.; C. Warner, Pemb.; H. A. Watermeyer, Cai.; M. H. Watney, Trin.; W. G. Watson, Cai.; A. M. Zamora, Christ's.

FINAL M.B., B.C. (*All Sections*).—A. Abrahams, Emm.; G. G. Alderson, Cai.; W. B. G. Angus, Christ's; C. W. Archer, Trin.; L. Bromley, Cai.; H. T. H. Butt, Christ's; W. H. Cam, Cai.; A. B. Carter, Jes.; G. Cawston, Cai.; A. J. Clark, King's; E. B. Clayton, Cai; L. Colledge, Cai.; R. Crawford, Jes.; J. H. Crofton, Pemb.; J. P. H. Davies, Jes.; H. L. Duke, Cai.; H. B. Ellison, Cai.; P. K. Gilroy, H. Selw.; T. R. Glynn, Cla.; J. L. Graham-Jones, Emm.; B. Haigh, Cai.; W. C. Hodges, Trin. H.; G. Holmes, Cai.; N. G. Horner, Cai.; H. E. Humphrys, Cai.; R. W. Ironside, Pemb.; W. Ledlie, Christ's; C. McKerrow, Cla.; H. McLean, Cai.; L. Meakin, Trin.; E. Mellanby, Emm.; H. G. Monteith, Pemb.; E. D. W. Reid, Christ's; H. G. Rice, Joh.; J. G. Saner, Cai.; H. S. C. Starkey, Down.; C. H. S. Taylor, Cai.; F. R. Thornton, Trin.; G. H. H. Waylen, King's; H. B. Weir, Trin.; C. S. E. Wright, Emm.; O. K. Wright, Christ's.

*Appointments.*

On account of the large number of candidates for the final M.B., B.C. examinations, the following additional examiners have been appointed: T. Dyke Acland, M.D.Oxon.; G. F. Still, M.D.Cantab.; A. G. Phear, M.D.Cantab.; H. S. Pendlebury, M.A., M.B., B.C., F.R.C.S.; L. B. Rawling, M.B., B.C., F.R.C.S.; J. Hutchinson, F.R.C.S.; W. G. Spencer, M.S., M.B.Lond., F.R.C.S.

*Degrees.*

The following degrees have been conferred:

*M.D.*—W. Fletcher, Gonv. and Cai.
*M.B.*—J. L. Joyce, King's; W. W. Treves, Gonv. and Cai.
*B.C.*—C. L. Forde, Cla.

## UNIVERSITY OF LONDON.

THE following candidates have been approved at the examinations indicated:

M.D., BRANCH I (*Medicine*).—A. Beeley, J. F. Blackett, M. Cohen, A. Fothergill, A. C. Gurney, W. L. Holyoak, H. I. Janmahomed (University medal), L. P. Maitland, E. F. Milton, B. T. Parsons-Smith, W. Patey, J. Ramsay, W. S. Sweet, R. S. Woods, A. S. Woodwark, C. E. Zundel.

M.D., BRANCH IV (*Midwifery and Diseases of Women*).—E. M. Cowell, J. H. Drew, P. L. Guiseppi, J. L. Lawry, I. C. Maclean, Emily M. S. Mecredy, Violet A. Turkhud.

M.D., BRANCH V (*State Medicine*).—E. H. R. Harries, L. F. Hirst, Sophia Seekings.

M.D., BRANCH VI (*Tropical Medicine*).—A. B. Fry, G. M. Harston, R. A. Lloyd, S. Shirgaokar.

M.S.—W. S. Fenwick, B.Sc., Charing Cross Hospital; R. Milne, M.D., London Hospital; H. E. Ridewood, M.D. (University medal), London Hospital; H. W. Wilson, St. Bartholomew's Hospital.

* Obtained the number of marks qualifying for the University medal.

## UNIVERSITY OF BIRMINGHAM.

THE following candidates have been approved at the examination indicated:

FINAL M.B., CH.B.—N. A. Boswell, H. G. Browning, Mary Clarke, H. F. Humphreys.

## NATIONAL UNIVERSITY OF IRELAND.

AT a meeting of the Senate on December 22nd, 1909, it was agreed that provision should be made for holding the examinations for all degrees of the university for students of University College, Dublin, in University College, Dublin, and for students of University College, Cork, in University College, Cork.

It was ordered that advertisements be issued for extern examiners for the subjects of the medical examinations for the year 1910.

The Presidents of the three University Colleges were elected Pro-Vice-Chancellors for a period of three years, and a committee appointed to draft such regulations as are contemplated by the Charter and Statute A of the University.

Tuesday, April 5th, was fixed as the date at which the spring examinations in medicine should begin.

## UNIVERSITY OF DUBLIN.

THE following were among the degrees conferred at a meeting of the Senate on December 20th, 1909:

M.D.—A. W. Goldsmith, H. Macmullen, J. E. M'Causland, F. R. Sayers, G. S. Walton, W. Shanks.

M.B., CH.B., B.A.O.—E. B. Bate, G. E. Craig, J. W. Flood, P. H. Lemass, J. E. N. Ryan, F. R. Sayers.

The following candidates have been approved at the examinations indicated:

D.P.H. (*Part I*).—J. W. Houston. R. B. Anderson.
D.P.H. (*Part II*).—S. B. Smith, R. B. Anderson, J. W. Houston.

## LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination in Tropical Medicine held at the end of the thirty-first session:

*†H. J. Walton, *A. Hutton, *G. D'Amico, *A. B. Fry, J. T. Smalley, F. H. Storey, F. E. Bissell, C. E. Vail, B. W. Cherrett, E. N. Cook, K. S. Mhaskar, W. J. Woodman, T. H. Gloster, B. Day, R. McC. Linnell, G. Olpp, F. N. Smartt, R. F. Baird, E. C. Hodgson, J. Lindsay, G. H. Gallagher, J. F. D'Mello, C. F. Strange, G. M. Sanderson, A. G. Carment, W. B. Carter, H. Catto.

* With distinction.

Of the twenty-seven successful candidates one represented the Royal Army Medical Corps, five the Indian Medical Service (of whom two passed with distinction), twelve the Colonial Medical Service, two passing with distinction.

## SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*†J. N. Beadles, *†R. J. Cyriax, *C. P. A. de L. Pereira, E. D. Richardson.

MEDICINE.—*†O. R. Kelly, *B. W. Loewenberg, *A. Y. Massey, *J. G. Morgan.

FORENSIC MEDICINE.—O. R. Kelly, J. G. Morgan, W. E. North Smith, A. H. Rich.

MIDWIFERY.—K. Baylis, J. N. Beadles, J. J. Hughes.

* Section I. † Section II.

# Public Health
AND
# POOR LAW MEDICAL SERVICES.

## TENURE OF OFFICE OF M.O.H.

WE are glad to observe that at a meeting of the town council of Richmond, Surrey, on December 14th, 1909, the following resolution, of which due notice had been given, was adopted:

> That subject to the approval of the Local Government Board, the appointment of Dr. John Hedley Crocker as medical officer of health for the borough be renewed at an annual salary of £450, until he resign or be removed by the Council with the assent of the Local Government Board.

The adoption would have been unanimous but for one councillor who persisted in asking certain questions. Councillor Taylor, who had moved the resolution, claimed the right to reply, but was deterred from doing so by general cries of "agreed."

Dr. Crocker was first appointed in 1901, and it is satisfactory to find that the appointment has now been placed on a more suitable footing by substituting for the annual form of appointment the form given above, which has the approval of the Local Government Board.

## TYPHOID FEVER IN ORMESBY.

THE urban district of Ormesby, where there is a population of about 15,000 persons, adjoins the borough of Middlesbrough. The houses, which are for the most part occupied by the working classes, are built in parallel rows, and at the rear of each house there is either a privy midden or a pail closet, there being about 1,500 of the latter and rather fewer of the former in the town. Less than 100 houses have waterclosets. For some years past there has been an undue prevalence of typhoid fever in the district, and in 1908 there were as many as 65 cases in fifty-one houses. Dr. R. W. Johnstone was accordingly deputed by the Local Government Board to inquire into the circumstances connected with the outbreak, and his report has recently been issued. After discussing the possibility of the water supply, the milk supply, or fish being directly involved in the spread of the disease, each is dismissed as a likely cause, and Dr. Johnstone finally expresses the opinion that the privy middens were responsible in no small degree for the dissemination of the fever, whether by transmission of the infection by house flies or in other ways. He recommended the district council to adopt measures to hasten the conversion of the privy middens to pail closets, or, better still, to waterclosets, and he urged that stable manure should be removed at least once a fortnight, in order to limit the breeding ground of flies. An unusual condition of the main sewer of the town is related by Dr. Johnstone, and is worth recording. In consequence of the level nature of the district and its inconsiderable elevation above sea level the sewer gradients are often too flat. In one instance the gradient was found to be in the wrong direction. This condition was looked upon locally as an advantage, for it was maintained that the sewer behind the reversed gradient remained permanently full, or almost full, of sewage, so that there was formed a water trap, which prevented gas from the sewage tanks finding its way into the sewers or house drains behind this so-called trap. Dr. Johnstone had not much difficulty in showing how fallacious was this contention.

## PROPOSED MILK LEGISLATION.

IN his December report to his authority the Medical Officer of Health for the City of London draws attention to the probability of the London County Council making a further effort next session to secure powers from Parliament for the purpose of dealing with dirty milk on the same lines as tuberculous milk. The powers sought would enable the Council to take samples of milk on arrival in London and to exclude all milk found to contain any sort of matter rendering it unwholesome or unfit for the food of man, and give similar authority to London sanitary authorities in respect of milk at any place within their districts other than railway stations. The medical officer recommends his Council again to oppose the granting of any such powers, on the ground that no legislation dealing with milk supply can be satisfactory unless it involves compulsory supervision over the whole country. He also urges that in the interest of traders any clauses dealing with the collection and examination of samples should provide both for their division and for the competency of the examiner as under the Sale of Food and Drugs Act.

## CHIMNEYLESS STOVES.

NO fewer than three inquests were held on Christmas Eve concerning the deaths of persons found dead in rooms heated by stoves unprovided with chimneys for the outlet of fumes. In each case the verdict returned was one of accidental death from carbonic oxide poisoning. The inquiries took place in Westminster, Marylebone, and Belfast respectively. The Westminster case concerned a young man found dead in a lavatory in which, the house being damp that day, a charcoal stove, used for many years in different parts of the house, had been placed.

The Marylebone case related to a domestic servant employed in the house of a medical man. To warm her room she had been provided with a stove of German origin and burning a special kind of fuel stated to be compressed peat. She had been told to use the stove only during the day and to put it into the passage at night, and had been specially warned on the subject the night preceding her death. Nevertheless she kept the stove in her room, the door and window both being closed.

In the Belfast case the deceased had been found in his office in the morning, and sitting beside him a lady, likewise unconscious. A gas stove was burning and the room was suffocatingly warm. The stove had a chimney, but it was not carried out of the room.

# Medical News.

DR. ADRIAN GREENE, Resident Medical Superintendent of the Carlow District Lunatic Asylum, has been appointed a Justice of the Peace for the county of Carlow.

THE report of the Medical Officer of Health of the County of London for the year 1908 has been issued, with a short prefatory report by the Public Health Committee, in which attention is specially directed to the decline in infant mortality, in the birth-rate, and in the death-rate, the latter having fallen as low as 13.8.

A LIST of medical libraries throughout the world, which appeared in the New York *Medical Record* of September 25th, 1909, has been reprinted. The information has been gathered by correspondence, and evidently great care has been taken in the compilation of the list. It includes the medical libraries of universities, colleges, and societies, but collections of medical works in general libraries have been omitted.

TO celebrate a record session at the London School of Tropical Medicine, fifty-seven students of the school dined at the Trocadero Restaurant on December 23rd, 1909, under the chairmanship of Captain Bissell, R.A.M.C. This break-up dinner included nearly every student who had entered for the course, and occasion was taken to entertain Sir Patrick Manson, Dr. H. B. Newham, Dr. Daniels, Dr. Wenyon, and Dr. Leiper. The arrangements for the dinner were made by Dr. Coghill, one of the demonstrators in the school.

THE Norwood Sanatorium, founded for the medical treatment of alcoholism and other forms of drug habits, has been removed to larger premises known as The Mansion, Beckenham Park, Kent. We are informed that nine-tenths of the patients admitted are sent directly by their own medical attendants, and that investigation into the causes and the best means of treatment of alcoholism have been and are being carried out. The last report would be sent to any medical practitioner on application to the medical superintendent at the above address.

AT the meeting of the Zoological Society of London on December 14th, 1909, Dr. H. B. Fantham, Protozoologist to the Grouse Commission, exhibited microscopic preparations and sketches illustrating the life-cycle of the sporozoon *Eimeria tenellum* (*Coccidium avium*), parasitic in the alimentary canal of grouse. The parasite produces a fatal coccidiosis in grouse chicks, especially during the first month or six weeks of their life. Schizogony and sporogony occurred in both the duodenum and the caecum of the host. The caeca of grouse chicks dying from coccidiosis were full of spores (oöcysts), which were passed with the caecal droppings, forming a source of infection on the moors. On the ingestion of the spores by other grouse the sporozoites were liberated by the action of the pancreatic juice. Larvae of *Scatophaga*, found in grouse droppings, swallow the coccidian spores, voiding them uninjured, and so aiding in the dissemination of the spores in nature. The coccidiosis of grouse is transmissible directly to young fowls and young pigeons by feeding these birds on faeces of infected grouse. At the same meeting Dr. R. T. Leiper exhibited the original specimens of the nematode worm *Acanthocheilonema dracunculoides* (Cobb) from the museum of the Royal College of Surgeons. The characters of the genus, of which this was the type, had been inaccurately interpreted, the posterior end of the worm having been described as the head and the cuticular caudal appendages regarded as "lips." The remarkable specific character—namely, the entire absence of male forms and the lack in the female of vaginal opening—had also to be repudiated, for both were to be seen in the original material. The genus, as revised, would admit a second species—the *Filaria perstans* of man.

# Letters, Notes, and Answers.

**BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.**

**THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.**

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London. W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

X. Y. Z. asks to be put on the royal road for separating blood corpuscles from fresh blood—for example, sheep's blood for Wassermann test. The chief difficulty he has found is to get the right centrifuge—one to work fairly large quantities. The cogs of all that he has purchased have ripped off before enough prolonged speed could be got out of them. He also desires to know the best diluent.

PUBLIC HEALTH CLASSES IN GERMANY.

H. B., who has recently passed his D.P.H., desires "to go over to Berlin to prosecute public health work," and asks us "how to set about it." Apparently he wants to take a short course of instruction. He confesses to "rather an elementary" knowledge of German.

*** We advise him to consult the director of the laboratory in which he has been working, explaining what particular branch of public health work he desires to study, and to obtain an introduction from him. Other letters of introduction might also be useful. With regard to the fees, he should make direct inquiries from the authorities concerned, specifying the nature of the course he wants to take up. He should consult *Minerva*, the scientific "Who's Who," for the addresses of distinguished pathologists abroad, but he can hardly expect that very busy men, such as the one he mentions, will be likely to give him much individual attention. If his knowledge of German does not enable him to understand the spoken language and to make himself understood, he will certainly be at a serious disadvantage.

## ANSWERS.

ELECTRICIAN.—So far as our inquiries have extended, nothing appears to be known among electro-therapeutists in this country about the electrically heated garment mentioned in the leaflet, and it would be desirable to have more definite technical information than the vague statements given therein before venturing an opinion as to its merits, or even as to its practicability.

R.N.—The *Archives Générales de Chirurgie* (40, Boulevard Malesherbes, Paris (VIII$^{e}$) would probably meet our correspondent's requirements. It is a monthly review edited by a committee consisting of Professor Lannelongue and Professor Le Dentu of Paris, MM. Nové-Josserand of Lyons, M. Picqué and M. P. Mauclaire of Paris. M. Mauclaire, who is agrégé Professor and Surgeon to the Charité, is the acting editor. The subscription for foreign countries is 26 francs a year.

THE CARE OF CLINICAL THERMOMETERS.

DR. B. STRACEY (Leicester) writes: In reply to "Vox Clamantis," who asks for methods of restoring marks on clinical thermometers, I have found black enamel, to be obtained from any bicycle shop, the best material. Paint over the stem of the thermometer with a thin layer of enamel, allow it to dry, and then rub over with methylated spirit or other solvent. The enamel remains in the grooves of the index in sufficient quantity to show them clearly.

ANTITOXIN TREATMENT OF DIPHTHERIA.

L. D.—(*a*) Not all authorities are agreed that antitoxin should invariably be injected in all doubtful cases of diphtheria, though the majority of them are so agreed. (*b*) Not all authorities are agreed that it should invariably be injected where the disease has been positively determined by cultures. (*c*) Its use is practically universal in this country, so far as is known; it certainly is so in hospital practice, and most of the cases are treated in hospitals. (*d*) Northrup, article on diphtheria in Nothnagel's *Encyclopaedia of Practical Medicine* (English edition), p. 165: and Caiger, BRITISH MEDICAL JOURNAL, October 8th, 1904, p. 903, may be consulted for views as to the routine use of antitoxin. The annual statistical reports of the Metropolitan Asylums Board show that not all cases that are diagnosed to be diphtheria are treated with antitoxin.

TREATMENT OF EXCESSIVE PERSPIRATION.

DR. A. HOWARD PIRIE (Chief Assistant, *X*-Ray Department, St. Bartholomew's Hospital) writes: In answer to "Worry," I have during the past year had four patients to treat for excessive perspiration. Two of these had the symptoms described, and were so exactly alike that it seems to be a chronic disease not usually described in textbooks. In each patient the sweating began in the morning after breakfast, and kept on badly all day, till by 5 p.m. they were forced to change all their clothes about the armpit. The perspiration soaked the coat about the armpit, caused a "high water mark"—as one patient called it when it dried—and so discoloured and destroyed it that neither could wear a coat longer than three months. Driving in a cold wind, or getting chilled, brought on the perspiration very badly. After 5 or 6 p.m. the perspiration would cease for the day, unless any worry or anxiety kept it going during the evening. In bed the perspiration completely stopped, and the patients were comfortable till next morning, when it began again after breakfast. The treatment was four applications of *x* rays to each armpit. The applications were made at intervals of one month, and were the largest applications that the skin would stand at each sitting. The dose was measured by two independent methods—Sabouraud's pastilles and my own meter. The armpit was divided into two areas, and each area was treated separately. This was to ensure that every part of the armpit got an equal dose. After two applications the patients began to notice an improvement, and after the fourth the armpit remained dry all day. Some time ago one patient wrote to me saying, "The comfort I am feeling from the treatment is more than I can describe, after suffering for about thirty years." The treatment is so simple that it seems wonderful that it is not more generally known. It was described by me in the BRITISH MEDICAL JOURNAL of April 17th, 1909, page 953.

## LETTERS, NOTES, ETC.

A WARNING.

MR. HUGH M. RIGBY, F.R.C.S. (London) writes: A young man claiming to be my relative has recently called on several medical practitioners in the London suburbs. He inquires for lodgings in the neighbourhood and then borrows money from the landlady to whom he has been introduced by the doctor. I write in the hope that this warning may be the means of securing his arrest.

LEVICO WATER.

WE have received from Messrs. Hertz and Co., 9, Mincing Lane, who are the English agents of the Levico Springs, a copy of a publication written by Professor Liemberger of Levico with a view to facilitating the use of these ferro-arsenical waters. It consists of a number of removable leaves, each giving a chart showing when and in what quantities the water should be drunk during the course of a cure. The charts are designed for patients of different ages from early childhood upwards, and it is intended that one of them should be removed from the block and handed to each patient, with any other instructions which the physician in charge of the case may think desirable. Each block of charts commences with a kind of title page to be retained by the physician himself, showing how much iron and arsenic respectively the patient will be taking when he has reached the middle of the course prescribed. The scheme has been well thought out and should greatly aid physicians employing these waters.

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